
BIOLOGICAL TECHNICAL REPORT
MEADOWOOD, SAN DIEGO COUNTY, CALIFORNIA

Project Numbers: GPA04-002, SPA04-001, R04-04, TM5354,
S04-005, S04-006, S04-007, ER04-02-004

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CERTIFICATION

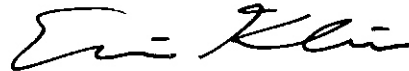
I hereby certify that the statements furnished below and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

July 27, 2009
Date



Name of Responsible Persons

July 27, 2009
Date



Name of Responsible Persons

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ACRONYMS

ACOE	Army Corps of Engineers
BLM	Bureau of Land Management
CEQA	California Environmental Quality Act
CDFG	California Department of Fish and Game
CNDDDB	California Natural Diversity Database
CNPS	California Native Plant Society
ESA	Endangered Species Act
GLA	Glen Lukos Associates
HCP	Habitat Conservation Plan
HLP	Habitat Loss Permit
MBTA	Migratory Bird Treaty Act
MSCP	Multiple Species Conservation Plan
NCCP	Natural Community Conservation Planning
NCFPD	North County Fire Protection District
NRC	Natural Resource Consultants
PCE	Primary Constituent Element
RPO	Resource Protection Ordinance
SCW	South Coast Wildlands

USFWS U.S. Fish and Wildlife Service
USGS U.S. Geological Survey



EXECUTIVE SUMMARY

The 389.5-acre Meadowood site (the site) is located north of the State Route 76 (SR-76), otherwise known as Pala Road, approximately one quarter mile east of Interstate 15 in the Fallbrook Community Planning Area of San Diego County, California. Pardee Homes proposes to develop approximately 217.8 acres (55.9 percent) of the Meadowood site for residential and associated uses including parks, recreational trails, brush management, water tanks, a wastewater treatment plant and wet weather ponds, fire access road, and an elementary school. Off-site improvements associated with the Meadowood project include various road widenings, road construction, and installation of water transmission lines. Impacts associated with off-site improvements are anticipated to result in removal of 445.1 acres of existing native and non-native vegetation and 19.5 acres of graded or previously disturbed areas.

This report describes the existing biological conditions on the site, evaluates the anticipated on- and off-site impacts to site-specific and regional biological resources, and provides mitigation measures for significant biological effects. Project-specific mitigation measures are consistent with the requirements of the California Department of Fish and Game (CDFG), U.S. Fish and Wildlife Service (USFWS), and County of San Diego. All studies described in this report were conducted and reported in accordance with the County of San Diego Resources Protection Ordinance (RPO) dated March 21, 2007. This report is formatted according to the County of San Diego Report Format and Content Requirements dated July 30, 2008. Biological information described in this report incorporates the results of biological studies conducted between June 2002 and July 2008 and responds to comments and input from the County of San Diego on reports submitted in November 2008, May and April 2008, April 2007, and September 2005.

Two federally listed wildlife species, arroyo toad (*Bufo microscaphus californicus*) and California gnatcatcher (*Poliophtila californica*), have been recorded within the boundaries of the Meadowood site. The California gnatcatcher has also been observed in the immediate vicinity of off-site improvement areas. A third federally listed wildlife species, least Bell's vireo (*Vireo bellii pusillus*), has been recorded adjacent to the site within off-site improvement areas. A fourth federally listed wildlife species, the southwestern willow flycatcher (*Empidonax traillii extimus*), has been recorded in the region, but has not been observed within the site boundaries or off-site improvement areas. The mitigation measures in this report are designed to offset all direct and indirect impacts to these species associated with grading of the Meadowood project.

The USFWS issued the "Biological Opinion Concerning the Proposed Rosemary's Mountain Quarry and Associated State Route 76 Expansion" dated June 27, 2007, for the realignment and widening of SR-76 (USFWS 2007a) adjacent to the Meadowood site. A permanent barrier between the south side of SR-76 and the Meadowood site was established as part of the SR-76 project. This barrier would eliminate any potential use of the Meadowood site by arroyo toad and the Meadowood project would not result in any impacts to this species. Likewise, potential direct and indirect impacts to California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher associated with widening of SR-76 would be mitigated according to the above-referenced Biological Opinion.

Critical Habitat for California gnatcatcher would be removed during project implementation. No least Bell's vireo Critical Habitat with suitable habitat for the vireo on site would be removed during project implementation. Southwestern willow flycatcher and least Bell's vireo Critical Habitat would be removed during widening and realignment of SR-76 and would be mitigated by measures described in the above-referenced Biological Opinion.

Approval of the Meadowood project is likely to precede the adoption of the North County Multiple Species Conservation Program (MSCP) and "take" authorization for the above-described federally listed species will proceed according to established federal permitting processes. Specifically, incidental take of California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher will be authorized through an ongoing Section 7 Consultation between the U.S. Army Corps of Engineers (ACOE) and USFWS pertaining to the Meadowood project.

In addition to the federally listed species discussed above, 14 special status wildlife species have been observed on the site between 2002 and 2008. These species include San Diego County Group 1 Species: two-striped garter snake (*Thamnophis hammondi*), northern harrier (*Circus cyaneus*), turkey vulture (*Cathartes aura*), and southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*); and San Diego County Group 2 Species: Belding's orange-throated whiptail (*Aspidoscelis hyperythrus beldingi*), coastal western whiptail (*Aspidoscelis tigris stejnegeri*), San Diego coast horned lizard (*Phrynosoma coronatum blainvillei*), Coronado western skink (*Eumeces skiltonianus interparietalis*), San Diego ringneck snake (*Diadophis punctatus similis*), northern red rattlesnake (*Crotalus ruber ruber*), western spadefoot (*Spea hammondi*), western bluebird (*Sialia mexicana*), barn owl (*Tyto alba*), and northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*). Seven other special status wildlife species were observed within off-site improvement areas including yellow warbler (*Dendroica petechia brewsteri*) and green heron (*Butorides virescens*), both of which are Group 2 species, and white-faced ibis (*Plegadis chihi*), Cooper's hawk (*Accipiter cooperii*), red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), and yellow-breasted chat (*Icteria virens*), which are Group 1 species. The project would not result in significant impacts to these species with the exception of western spadefoot toad. To avoid and offset significant impacts to the spadefoot toad, specific mitigations have been proposed for this species. No special status plants have ever been observed on or in the vicinity of the site.

The development of the Meadowood project would result in permanent impacts to 0.83 acre of ACOE jurisdiction and 0.93 acre of CDFG jurisdiction (GLA 2007). The off-site improvements associated with the Meadowood project would result in permanent impacts to 2.29 acres of ACOE jurisdiction. The project would also result in temporary impacts to 2.04 acres of ACOE jurisdiction off-site. Within CDFG jurisdiction the project would result in permanent off-site impacts to 2.29 acres and temporary off-site impacts to 2.04 acres. The project would result in permanent impacts to 2.29 acres of RPO wetlands off-site. The project would also result in temporary impacts to 2.04 acres of RPO wetlands off-site (GLA 2008).

The Meadowood project proposes to retain 122.4 acres on site as natural open space and 49.3 acres (including 1.9 acres of disturbed land) on site as agriculture open space. Impacts to coastal sage scrub, non-native grassland/pasture, and southern mixed chaparral would be mitigated by preservation on site. In addition to on site preservation, 2.7 acres of off-site mitigation lands are necessary for impacts to grassland/pasture and approximately 12.3 acres of mitigation lands for impacts to wetland vegetation for impacts to RPO, CDFG and ACOE defined wetlands. The mitigation lands for wetland impacts are subject to required state and federal wetland permits. Preserved land on and off-site totals 186.7 acres including 74.5 acres of coastal sage scrub vegetation. Total preserved land for mitigation, which does not include the 49.3-acre agricultural open space equals 130.6 acres. Preservation of these lands supplemented by various measures designed to mitigate adverse project effects would reduce impacts to biological resources to less than significant.

1.0 INTRODUCTION

Natural Resource Consultants (NRC) was retained by Hewitt & O'Neil LLP to prepare a biological resources assessment for the 389.5-acre Meadowood site ("the site") located in northern San Diego County, California (Exhibit 1). Pardee Homes proposes to develop approximately 217.8 acres (55.9 percent) of the Meadowood site for residential and associated uses including parks, recreational trails, brush management, water tanks, fire access road, and an elementary school. Off-site impacts of approximately 64.6 acres associated with the Meadowood project include road widening, new road construction, and water pipeline. The following report provides a detailed assessment of the biological impacts and mitigation measures associated with this project.

1.1 PURPOSE OF THIS REPORT

This Biological Technical Report describes the existing biological conditions on the site and within the proposed off-site improvement areas and evaluates the anticipated effects of the proposed project on biological resources. Mitigation measures are also proposed to offset adverse project effects. All proposed mitigation measures described herein are consistent with the requirements of the California Environmental Quality Act (CEQA), the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), the proposed North County Multiple Species Conservation Program (MSCP), and Resource Protection Ordinance (RPO). A wetland delineation report for the Meadowood project has been prepared by Glenn Lukos and Associates (GLA) for impacts to U.S. Army Corp of Engineers (ACOE) and CDFG jurisdictional areas. Where appropriate, jurisdictional impacts have been incorporated into this report. In some cases these numbers may vary from wetland vegetation acreages used for CEQA documentation reported in this document. This report is formatted according to the County of San Diego Report Format and Content Requirements dated July 30, 2008.

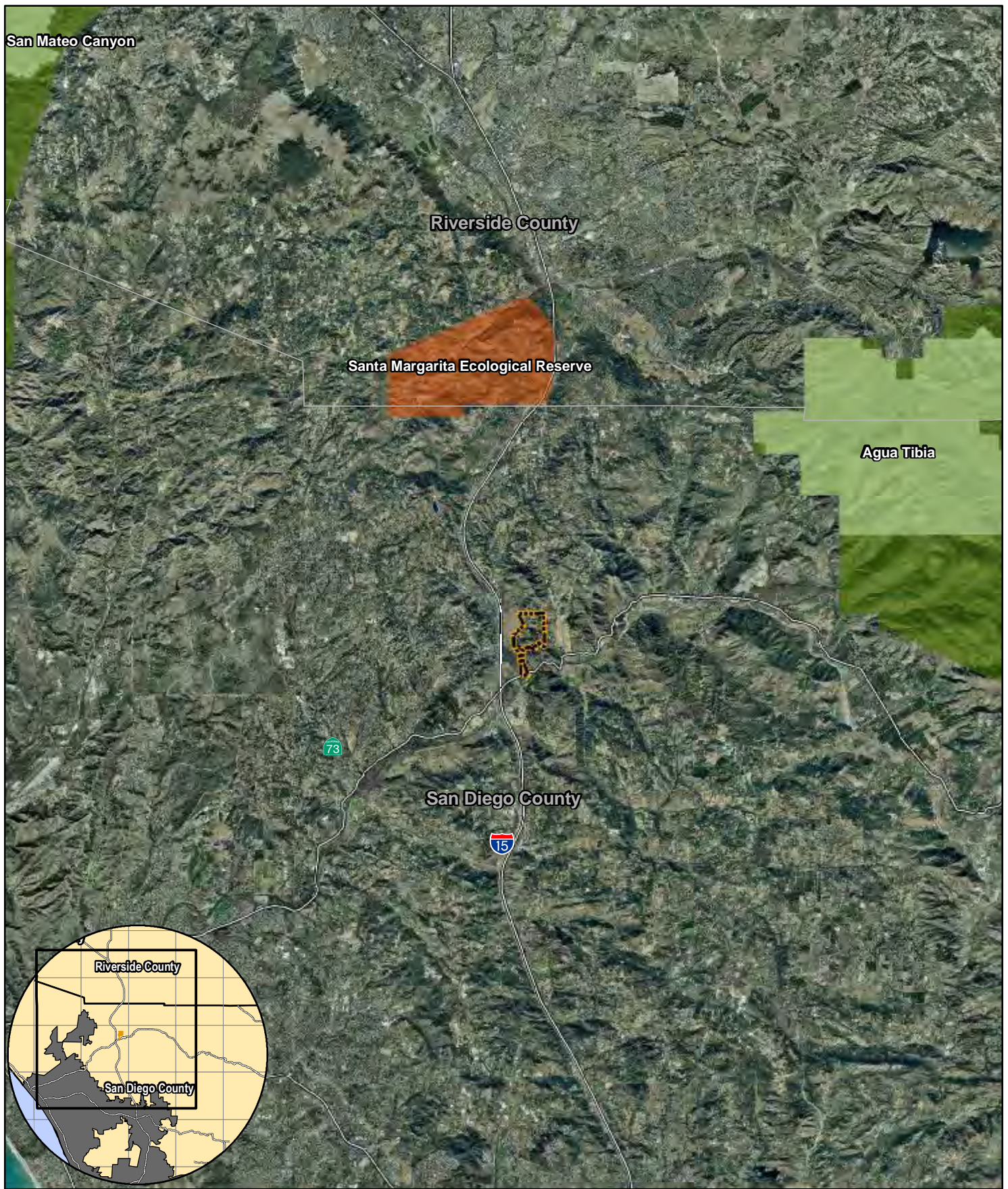
The Meadowood project may be approved prior to adoption of the North County MSCP; however, in anticipation of this regional plan, the project has been evaluated for on site consistency with the proposed Plan. Based on this evaluation the project is included as a Hard-lined Development Project under the proposed North County MSCP and "Take Authorized" and "Preserve" areas have been defined. To ensure adequate mitigation for anticipated impacts to federal and state endangered and threatened species, authorization for incidental "take" will proceed according to established federal permitting processes. Specifically, incidental "take" of the California gnatcatcher and coastal sage scrub habitat associated with this project and incidental "take" of least Bell's vireo and southwestern willow flycatcher and Critical Habitat for these species will be authorized through an ongoing Section 7 Consultation in connection with a 404 permit between the ACOE and USFWS pertaining to the Meadowood project.





1.2 PROJECT LOCATION AND DESCRIPTION

The Meadowood site is located in the northern San Diego County east of Interstate 15 (I-15) and north of State Route 76 (SR-76), also known as Pala Road, in an unincorporated area near the community of Fallbrook (Exhibits 1 and 2). The majority of the site is shown in Section 36 of Township 9 South, Range 3 West of the U.S. Geological Survey (USGS) 7.5-minute *Bonsall* quadrangle. A smaller portion is located to the south within Section 10, Township 10 South, Range 3 West. The site can be accessed via an unimproved road proceeding north from SR-76. Numerous other unimproved roads provide access to various portions of the site. The Meadowood site includes assessor's parcel numbers (APN): 108-120-52, 53, 54; 108-121-11; 108-122-03, 08, 09, 10, 11; 125-061-04, 05; and 125-062-02. The Rice Fire in late October 2007 burned substantial portions of the site. This report assumes full recovery of habitats on the site and describes pre-fire conditions, which are reported and evaluated in this document.

1.2.1 DISCRETIONARY PERMITS AND LAND USE SUMMARY

The Meadowood Project includes the following discretionary applications: a General Plan Amendment, a Specific Plan Amendment, a Rezone, a Vesting Tentative Map, a Major Use Permit for the on site wastewater treatment



-  Meadowood Site Boundary
-  Cleveland National Forest
-  BLM Designated Wilderness Areas
-  BLM Area of Critical Environmental Concern

INSET MAP: Main map area relative to USGS topographic quadrangles and counties.

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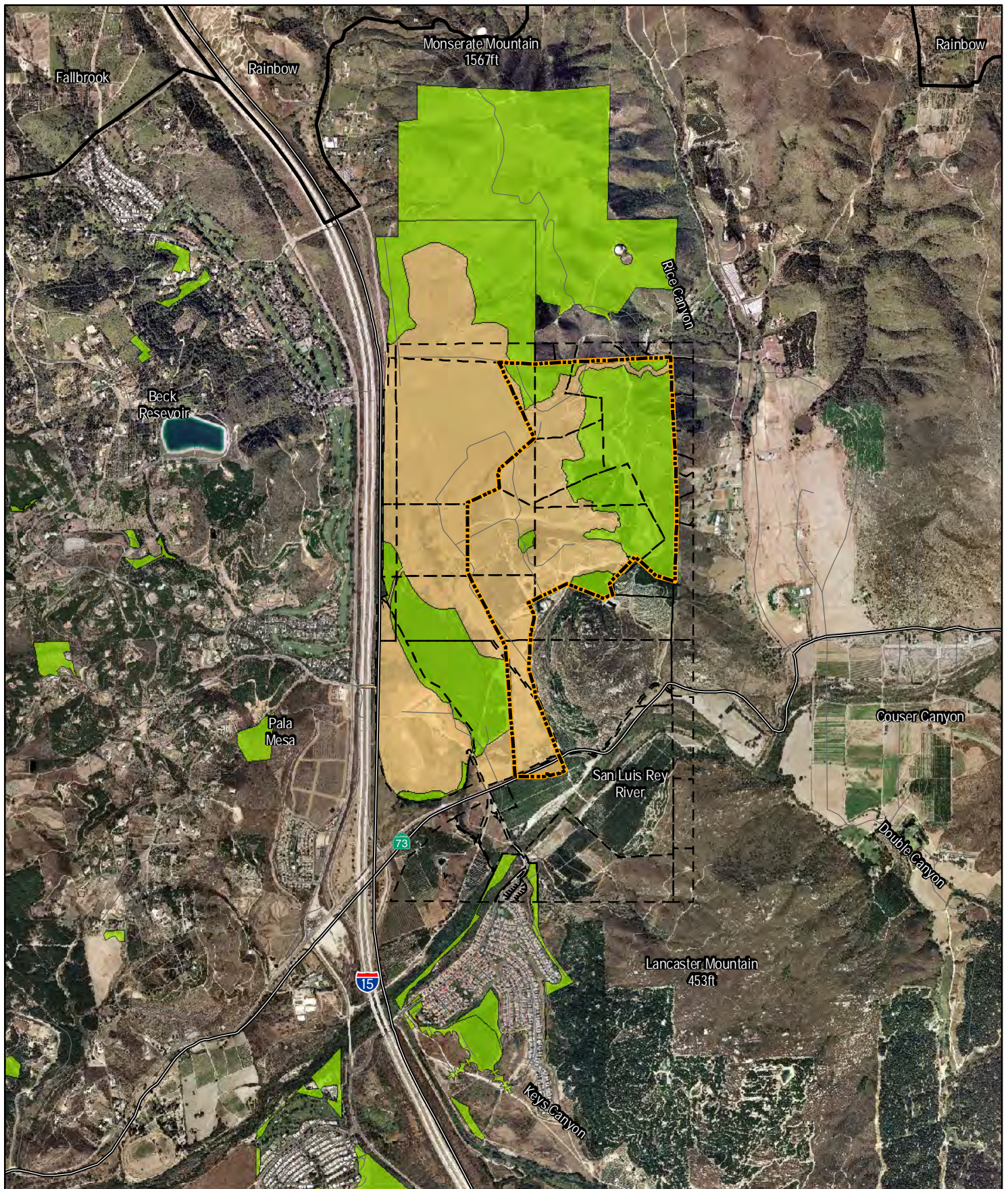


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EXHIBIT 1: LOCATION MAP

MEADOWOOD | COUNTY OF SAN DIEGO, CALIFORNIA





Eric kline, Natural Resource Consultants, 18 May 2009, Proj_GIS\pdrdes\meadowood\workspaces\2009\bio_resources\mscp.mxd

- Meadowood Site Boundary
- Assessor's Parcels
- Draft MSCP Pre-negotiated (Hardlined) Take Authorized Areas
- Draft MSCP Preserve Areas



EXHIBIT 2: PROPOSED NORTH COUNTY MSCP MAP

MEADOWOOD | COUNTY OF SAN DIEGO, CALIFORNIA



facility, and three Site Plans. The site is 389.5 gross acres and located just north of SR-76, approximately ¼ mile east of I-15 in the Fallbrook Community Planning Area. The main access will be taken via Horse Ranch Creek Road, which will extend north from SR-76 and connect to Pankey Road, which then connects to Stewart Canyon Road. The community will consist of a mix of single-family and multi-family home products totaling 844 units (Exhibit 3). Nearly half of the project will consist of natural and agricultural open space and parks. The plan preserves sensitive biological habitat and provides 5.9 miles of multi-use trails (hiking and horseback riding). In addition, land has been set aside for an elementary school. A paved fire access road, extending northeasterly from Street E to Rice Canyon Road, will provide for emergency and fire department access to the east. The fire access road was designed to follow as much of the existing dirt roads as possible to minimize impacts to biological resources. The access road which varies in width from 20 – 24 feet will be paved. The elevation of the road ranges from approximately 520 at the cul-de-sac to a peak elevation of 740 at the ridge with manufactured slopes, some exceeding 60 feet in height. A 30-foot brush management zone will be present along the road to meet North County Fire Protection District (NCFPD) standards. The project, including grading, may be phased by recording several different final maps.

Seven Planning Areas within the site are described below:

TABLE I. LAND USE SUMMARY

Planning Area	Use	Proposed Zoning	Gross Acreage	Proposed Dwelling Units	* Actual Density
1	Multi-Family Detached/ Wastewater Treatment Facility	RV10	26.1	164	6.3
2	Elementary School Site	RV10	12.7	**42	3.3
3	Neighborhood Park	S80	10.1	---	---
4	Multi-Family Attached	RU20	24.0	325	13.5
5	Single-Family Detached	RS3	132.5	355	2.7
6	Agricultural Open Space	S80	47.6	---	---
7	Open Space (including 5.6 acre water tank site)	S80	128.5	---	---
	Roads, etc.	---	8.0	---	---
Totals			389.5	886	2.3

<i>Land Use Summary</i>	<i>Without School</i>	<i>With School</i>
Single-Family Dwelling Area	355	355
Multi-Family Attached Area	325	325
Multi-Family Detached	206**	164**
Totals	886	844

* Density = dwelling units per acre

** Note: The actual proposed dwelling unit number is $886 - 42 = 844$, because the elementary school is the included use for Planning Area 2. The 42 units are intended to designate a land use for the parcel if the school district decides not to utilize the land.

Pardee Homes is working with numerous public agencies to ensure appropriate infrastructure is provided to the new community. Pardee has been in close contact with the Local Agency Formation Commission, San Diego County Water Authority, the Metropolitan Water Authority, the San Luis Rey Municipal Water District, the Rainbow Municipal Water District and the Valley Center Municipal Water District to determine the best provider of water and sewer service to the development. Pardee has also met with the North County Fire Protection District to secure emergency services for the future residents of Meadowood. Finally, a cooperative relationship has been formed with the Fallbrook Union High School District and the Bonsall Union School District, and Pardee is working toward agreements with each district.

Exhibit 3 (OVERSIZE)

1.2.2 LIMITED BUILDING ZONES EASEMENTS

Limited Building Zone Easements and other brush management areas associated with the project are considered part of the development area and occur outside of Designated Open Space areas. The Limited Building Zone Easement has been set at 100 feet from edge of proposed homes adjacent to open space. No Limited Building Zone is proposed where orchards would be preserved adjacent to residential buildings. The brush management zone is 100 feet except in areas where a one-hour fire-rated wall is provided. With the fire-rated wall, the zone is reduced to 50 feet. A 30-foot brush management zone is proposed around the fire access road. Residential housing and associated infrastructure on the adjacent Campus Park property are proposed along the western border reducing the need for fuel modification in this area. Horse Ranch Creek Road also runs along a large portion of the western and eastern borders and would provide a fire break for structures adjacent to the road. Some portions along Horse Ranch Creek Road would have a 30-foot brush management area where needed. No brush management is proposed along a portion of the eastern edge of the southern panhandle of the site. This area is a hillside consisting mostly of solid rock with little vegetation. Limited Building Zones are shown on Exhibits 4 and 4a.

1.2.3 WASTEWATER TREATMENT PLANT

The wastewater treatment plant and wet weather ponds would be situated on site within existing groves located south of the existing SR-76 and north of the realignment of SR-76. These facilities would impact approximately two acres of agricultural lands within the site boundary.

1.2.4 OFF-SITE IMPROVEMENTS

Proposed off-site improvements include widening or improvements to Pankey Road, Pala Mesa Drive, Pala Mesa Heights Drive, Street B (a residential connection road), Horse Ranch Creek Road and the installation of water transmission lines. Widening and realignment of portions of SR-76 adjacent to the Meadowood site has been permitted under the “Biological Opinion Concerning the Proposed Rosemary’s Mountain Quarry and Associated State Route 76 Expansion” dated June 27, 2007 (USFWS 2007a). Road widening as described in that Biological Opinion has established a permanent barrier between the south side of SR-76 and the Meadowood site. This barrier eliminates any potential use of the Meadowood site by arroyo toad. Accordingly, the Meadowood project would not result in impacts to arroyo toad. Likewise, potential direct and indirect impacts to California gnatcatcher, least Bell’s vireo, and southwestern willow flycatcher associated with widening of SR-76 would be mitigated separately from the Meadowood project.

1.3 SURVEY METHODS

NRC conducted general and focused biological surveys of the Meadowood site between June 2002 and July 2008. Appendix A lists all surveys conducted on the Meadowood site, including those conducted by Glenn Lukos and Associates and Cadre Environmental. The general biological surveys covered all portions of the site. The purpose of these surveys was to gather biological information pertaining to the extent and location of vegetation communities, the presence of suitable habitat for any special status plant and wildlife species, and any regionally important biological resources.

Biological survey methods and database evaluations are described below. Floral taxonomy used in this report follows The Jepson Manual (Hickman 1993). Common plant names, where not available from Hickman, are taken from Beauchamp (1986), and McAuley (1996). Vertebrate taxonomy follows Stebbins (2003) for amphibians and reptiles, American Ornithologists’ Union (1998 and supplements) for birds, and Jameson and Peeters (1988) for mammals. Scientific names are mentioned once and common names are used thereafter.

1.3.1 GIS ANALYSES

Geographic information systems (GIS) were used to map and evaluate existing biological data and analyze potential project effects on biological resources. ArcGIS 9.2 software and the Spatial Analyst extension were used for these analyses.

1.3.1.1 Sensitive Biological Resource Locations

NRC conducted a comprehensive evaluation of GIS database information available for the site and region including sensitive species data from the California Natural Diversity Database (CNDDDB 2008), species occurrence data from the USFWS, (USFWS 2008) and proposed and designated Critical Habitat boundaries (USFWS 2008). These datasets were used to provide historical sensitive species locations and as potential indicators of species' presence. These datasets, however, were not used to identify the current presence or absence of species, population size, and location of special-status resources on the site and within off-site improvement areas.

1.3.2 SENSITIVE PLANT SURVEYS

Focused sensitive plant surveys were conducted by qualified botanists during general biological resource surveys between mid-October 2003 and late-August 2004. Special emphasis was placed on searching for threatened, endangered, and otherwise sensitive plants that might be present on the site. Surveys also focused on determining the presence of vernal pool indicator species, rare species, and narrow endemics. The focused surveys in 2003 and 2004 plus additional sensitive plant surveys conducted in 2005 and 2006 during general biological surveys did not detect any state or federally listed or otherwise special status plant species on the site or in proposed off-site improvement areas.

1.3.3 QUINO CHECKERSPOT BUTTERFLY HABITAT ASSESSMENT

A habitat assessment for the federally endangered Quino checkerspot butterfly (*Euphydryas editha quino*) was conducted by Claude Edwards (TE 814215-3) in early January 2004 and repeated in April 2005. No larval food plants, cryptogamic soils, or other indicators of suitable larval habitat were detected on the site. The site is located outside of this butterfly species' range, as well as any of the USFWS's "Recovery Units" and adult flight-zone maps (USFWS 2003b). No suitable habitat for the Quino checkerspot butterfly occurs on site and no adult surveys are recommended. Likewise no further habitat assessments for this species are recommended.

1.3.4 CALIFORNIA GNATCATCHER SURVEYS

The California gnatcatcher (*Poliophtila californica*) is a federally threatened species. Surveys to determine presence/absence of this species are strictly regulated by the USFWS. Presence-absence surveys were performed by Claude Edwards (Permit TE 814215-3) within appropriate portions of the site between November 26, 2003 and January 8, 2004. In 2005, presence-absence surveys were performed by NRC biologist Mike Klein (Permit TE 039305-2) within appropriate portions of the site between May 27 and June 16, 2005. In 2006, presence-absence surveys were performed by NRC biologist Eric Kline (Permit TE 110373-0) within appropriate portions of the site between April 28 and May 13, 2006. In 2007, presence-absence surveys were performed by Eric Kline within appropriate areas on- and off-site between April 19 and May 11, 2007. In 2008, presence-absence surveys were performed by Eric Kline within appropriate on- and off-site areas between May 1 and 15, 2008 where suitable habitat remained after local wildfires burned much of the vegetation in 2007. During these surveys all areas were covered on foot by walking slowly through or adjacent to suitable habitat, stopping periodically to listen for gnatcatcher vocalizations. Tape-recordings of the species' typical mew notes were played periodically to induce any nearby silent birds that may be present to call in response to the presumed intruder. Weather conditions during the surveys are summarized in Appendix A.

No California gnatcatchers were detected on site during the 2004, 2005, 2006, or 2008 surveys. A single individual was observed off-site, west of the site boundary, in 2004. In 2007, one male California gnatcatcher was observed in the northwestern corner of the site and two other males were observed in the vicinity of proposed off-site improvements along Pankey Road. California gnatcatcher survey reports are on file with the USFWS Carlsbad Office and are included in Appendix B.

1.3.5 LEAST BELL'S VIREO SURVEYS

The least Bell's vireo (*Vireo bellii pusillus*) is a federal and state endangered species. A habitat assessment for the least Bell's vireo was conducted in 2003 and 2004. These surveys confirmed the absence of suitable habitat for the least Bell's vireo on the site. In 2005, suitable riparian habitat was identified off-site to the west and south of the site along the San Luis Rey River and Horse Ranch Creek. Several individual vireos were detected in the vicinity of the site between 2004 and 2006. Between April 23 and July 13, 2007, presence-absence surveys were performed by NRC biologist Claude Edwards (Permit TE 814215-3) within appropriate off-site riparian areas where access was available or granted by land owners. Six least Bell's vireos were observed along the San Luis Rey River and seven vireos were observed along Horse Ranch Creek. In 2008 presence-absence surveys were performed by NRC biologist Robert Bates (TE-154963-0) between April 23 and July 9, 2008. The least Bell's vireo survey reports are on file with the USFWS Carlsbad Office and are included in Appendix B.

1.3.6 SOUTHWESTERN WILLOW FLYCATCHER SURVEYS

The southwestern willow flycatcher (*Empidonax traillii eximus*) is a federal and state endangered species. Presence-absence surveys for the southwestern willow flycatcher were performed by permitted biologist Claude Edwards (Permit TE 814215-3) within appropriate off-site locations where access was available or granted by land owners between May 25 and July 13, 2007. In 2008 presence-absence surveys were performed by permitted biologist Robert Bates (TE-154963-0) between May 14 and June 26, 2008. These surveys were conducted concurrently with least Bell's vireo surveys. Suitable riparian habitat was observed to the west and south of the site along the San Luis Rey River and Horse Ranch Creek. No suitable habitat is located on the Meadowood site. No southwestern willow flycatchers were observed during these surveys. The southwestern willow flycatcher survey reports are on file with the USFWS Carlsbad Office and are included in Appendix B.

1.3.7 ARROYO TOAD SURVEYS

The arroyo toad (*Bufo californicus*) is a federal endangered species. Between April and September 2003, February and August 2004, February and July 2005, February and August 2006, and March through August 2007 pitfall trap lines were established and maintained along the southern and western boundaries of the Meadowood site by Ruben S. Ramirez, Jr. (Permit 780566) of Cadre Environmental (Cadre Environmental 2007). The pitfall trapping study included one to three trapping bouts per month for approximately six months. The traps (buckets) were closed between trapping bouts. In addition to pitfall trapping, Mr. Ramirez conducted a focused search for arroyo toad within the San Luis Rey River both up-and down-stream of the study area in 2003, 2004, 2005, 2006, and 2007. The study area for focused surveys included roads adjacent to the San Luis Rey River. No arroyo toads were recorded on the Meadowood site between 2003 and 2006. Arroyo toads have been observed south of the site and south of the former alignment of SR-76 in the vicinity of the San Luis Rey River between 2003 and 2007. In 2007, a single arroyo toad was observed on the site south of SR-76. No arroyo toads have been observed on the site north of the former alignment of SR-76. The Cadre 2007 arroyo toad report identifies areas of suitable habitat for this species on the Meadowood site and is on file with the USFWS Carlsbad Office and is included in Appendix B of this report.

1.3.8 LIMITATIONS OF BIOLOGICAL SURVEYS

NRC's biological surveys were designed to provide a thorough record of the extent and location of existing vegetation communities and an inventory of the plant and wildlife species that occur on site. There may be sensitive,

but not federally or state-listed, amphibian, reptile, bird and mammal species that potentially occur on site (i.e., the site occurs within the documented species' range and the existing habitat components are similar to those where this species has been detected elsewhere) but were not detected during the course of the NRC's biological studies. For these species, NRC has identified the presence of suitable and apparently unoccupied habitat. The recognition of suitable habitat does not indicate presence or absence of the species.

1.4 ENVIRONMENTAL SETTING

Approximately 209.9 acres or 53.9 percent of the site is currently used for agriculture, consisting mostly of citrus and avocado orchards in the central portion and agricultural fields in the southern portions. The remainder of the site to the north and east is characterized by rugged terrain. Native plant communities in these areas consist primarily of disturbed and undisturbed coastal sage scrub, southern mixed chaparral and two small areas of coast live oak woodland. A small isolated area of willow/mule fat riparian scrub is located at the western boundary and two man-made irrigation ponds which support only traces of vegetation along the edges. The site also supports non-native annual grassland. The soil consists of sandy loams throughout the site and decomposed granite in the hillsides.

Elevations on site range from approximately 265 feet above mean sea level (MSL), at the southern end of the site nearest to the San Luis Rey River, to approximately 818 feet above MSL, along the southern flank of Monserate Mountain. The dominant feature is Monserate Mountain, the southern ridgeline of which occupies the eastern portion of the site. The eastern boundary descends into Rice Canyon, most of which is further to the east. Surrounding land uses include cattle ranching to the west, and agricultural activities occupy lands to the east and south. Undisturbed natural vegetation occurs on the slopes and ridges to the north.

The USFWS issued the "Biological Opinion Concerning the Proposed Rosemary's Mountain Quarry and Associated State Route 76 Expansion" dated June 27, 2007, for the realignment and widening of SR-76 (USFWS 2007a) adjacent to the Meadowood site. These improvements are currently underway and all mitigation measures are being implemented by that project. The Meadowood project is not responsible for either the impacts or mitigation associated with improvements to SR-76.

1.4.1 REGIONAL CONTEXT

The County of San Diego is currently in the process of creating a multiple species conservation plan for the unincorporated areas of northern San Diego County (North County MSCP). The North County MSCP is being modeled after the existing San Diego County Multiple Species Conservation Program Subarea Plan. The MSCP generally does not designate an exact preserve boundary, but instead designates large Pre-approved Mitigation Areas (PAMA) within which conservation efforts are to be concentrated and a preserve will be assembled. The MSCP generally provides incentives for development to occur outside of a PAMA. There are three segments in the existing MSCP: Lake Hodges, South Country, and Metro-Lakeside-Jamul. The first two are comprised mainly of "hardline" designations that were agreed upon between landowners, the wildlife agencies, and the County. The Metro-Lakeside-Jamul segment has no hardlines with the exception of three properties, but rather has "softlines" targeted for preserve assembly.

A "hard line," defining preserve and development areas has been negotiated for a few properties, including Meadowood for the North County MSCP. In such areas, preservation and development area decisions were made during MSCP development with respect to the location of open space and development. The draft North County MSCP map shows certain areas of Meadowood as "take authorized" and others as preserved. The open space in Meadowood is connected to other proposed PAMA to the north and east forming part of a large habitat block that extends from I-15 east to the Pala Indian Reservation and beyond.

Several preserved natural lands are located in the region of the Meadowood site. The Cleveland National Forest is located approximately seven miles to the east and 13 miles to the northwest of the project site. There are also two Bureau of Land Management (BLM) Designated Wilderness Areas located within these two areas of the Cleveland National Forest, Agua Tibia and San Mateo Canyon. The Santa Margarita Ecological Reserve is a BLM Area of Critical Environmental Concern located approximately five miles to the north of the site. These preserved natural lands are shown on Exhibit 1.

1.4.2 HABITAT TYPES/VEGETATION COMMUNITIES

Vegetation community classifications in this report follow those of Holland (1986) and reference the classification codes as described in Table 4 of the County of San Diego's Guidelines for Determining Significance (County of San Diego, 2007). The Rice Fire in late October 2007 burned native and non-native vegetation communities on portions of the site. This report assumes full recovery of habitats on the site and describes pre-fire vegetation conditions, which are reported and evaluated in this document. All plant species observed on site are listed in Appendix C. The following sections describe all on- and off-site vegetation communities.

Eleven different vegetation communities, or habitats, have been identified within the boundaries of the Meadowood site. The following vegetation communities occur within the site boundaries: agriculture (209.9), annual grassland (31.9 acres), coastal sage scrub (56.5 acres), disturbed coastal sage scrub (30.6 acres), southern mixed chaparral (19.6 acres), non-native trees (8.3 acres), pastureland (1.5 acres), coast live oak woodland (1.7 acres), willow/ mule fat scrub (less than 0.1 acre), open water/pond (0.7 acre), and developed or disturbed (28.7 acres). The acreage of each vegetation community on the site is listed in Table II. An additional three vegetation communities, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh, occur in off-site improvement areas. The location and extent of each vegetation community is illustrated in Exhibits 4, 4A, 4B, and 4C. Exhibit 4 is a large reference map for the Biological Resource Maps 4A, B, and C. These 200-scale maps are found in the pocket at the back of this report.

TABLE II. VEGETATION COMMUNITIES ON THE MEADOWOOD SITE

VEGETATION COMMUNITY	ACREAGE
Agriculture (18000 and 18100)	209.9
Non-native grassland (42200)	31.9
Coastal sage scrub (32500)	56.5
Disturbed coastal sage scrub (32500)	30.6
Southern mixed chaparral (37120)	19.6
Non-native trees (11000)	8.3
Pastureland (18310)	1.5
Coast live oak woodland (71160)	1.7
Willow/ mule fat scrub (63300)	<0.1
Open water ponds (13100)	0.7
Disturbed and developed (11000, 12000, 13000)	28.7
TOTAL	389.5

1.4.2.1 Agriculture (18000 and 18100)

The majority of the Meadowood site is committed to various agricultural activities, with extensive areas supporting citrus and avocado orchards (18100) occupying the lower and mid-portions of ridges and slopes in the central portion of the site. Agriculture fields (18000) occupy the southern arm of the site. These areas are irrigated, and the citrus

and avocado trees are maintained by periodic trimming and pruning. Agriculture vegetation covers approximately 209.9 acres (53.9 percent) of the site. Agricultural areas consisting of orchards and fields are also found off-site.

1.4.2.2 Non-Native Grassland (42200)

Non-native grassland vegetation is characteristically dominated by annual grasses, or co-dominant with various non-native forbs. Several bulbiferous species may also be present. There may also be a scattering of soft-wood perennial sub-shrubs. The vigor and growth of grasslands is influenced by the presence of moisture, be it winter and spring rains, moisture-retentive soils, or the presence of seeps and drainages. Grasslands grow to an average height of one to four feet. On the Meadowood site, annual, or non-native, grasslands are found in areas where the soil has been disturbed, usually as a result of various agricultural activities. Non-native grassland covers approximately 31.9 acres (8.2 percent) of the site.

Dominant plants in this community include those that thrive and respond well to disturbance, including exotic grasses like wild oats (*Avena* sp.), ripgut grass (*Bromus diandrus*) and red brome (*Bromus madritensis* ssp. *rubens*), as well as black mustard (*Brassica nigra*) and short-pod mustard (*Hirschfeldia incana*), which are conspicuous and sometimes prevalent in this community. Smaller amounts of Russian thistle (*Salsola tragus*), Italian thistle (*Carduus pycnocephalus*), tocalote (*Centaurea melitensis*), common horseweed (*Conyza canadensis*), Crete hedynois (*Hedypnois cretica*), telegraph weed (*Heterotheca grandiflora*), wild lettuce (*Lactuca serriola*), California chicory (*Rafinesquia californica*), prickly sow-thistle (*Sonchus asper*), twiggy wreathplant (*Stephanomeria virgata*), filaree (*Erodium* spp.), and horehound (*Marrubium vulgare*) also occur. Non-native grasslands found within off-site improvement areas are comprised of a similar array of plant species.

1.4.2.3 Coastal Sage Scrub (32500)

Coastal sage scrub vegetation is characterized by the presence of drought-tolerant native shrubs, most of which are also drought-deciduous, that periodically shed their leaves to minimize water loss during dry months. Sage scrub vegetation grows to a height of two to five feet. There is typically an appreciable amount of herbaceous understory, comprised of native and exotic grasses, as well as annual and perennial wildflowers and sub-shrubs. Depending on the presence of certain key indicator plants, sage scrub vegetation can be classified as one of several different types (Holland, 1986). On the Meadowood site, both Diegan and Riversidean sage scrub sub-types occur and they often intergrade. For the purposes of this report, all sage scrub vegetation communities are categorized simply as coastal sage scrub. Coastal sage scrub occurs on approximately 56.5 acres (14.5 percent) of the site. The coastal sage scrub is mature and provides greater than 50 percent absolute ground cover. It is a highest-inventory priority community by the CDFG, indicating that it is declining in acreage throughout its range. Coastal sage scrub has been state-ranked as S3.1 by the CNDDDB.

Coastal sage scrub on site occurs predominantly on west- and south-facing slopes, including the southern and western slopes and ridge tops of Monserate Mountain along the northern and eastern boundaries. It is characterized by the presence of laurel sumac (*Malosma laurina*), California sagebrush (*Artemisia californica*), saw-toothed goldenbush (*Hazardia squarrosa*), deerweed (*Lotus scoparius*), white sage (*Salvia apiana*), black sage (*Salvia mellifera*), California buckwheat (*Eriogonum fasciculatum*), and chaparral yucca (*Hesperoyucca whipplei*). Coast prickly pear (*Opuntia littoralis*) and cane cholla (*Opuntia parryi*) are present in some areas.

In addition to the more common plants mentioned above, Mexican elderberry (*Sambucus mexicanus*), lemonadeberry (*Rhus integrifolia*), golden yarrow (*Eriophyllum confertiflorum*), chalk dudleya (*Dudleya pulverulenta*), bush monkeyflower (*Mimulus aurantiacus*), and giant wild rye (*Leymus condensatus*) are also present. Drier terrain on south-facing slopes supports such plants as sugar bush (*Rhus ovata*), brittlebush (*Encelia farinosa*), goldenbushes (*Ericameria linearifolia* and/or *E. pinefolia*), thick-leaved yerba santa (*Eriodictyon crassifolium*), coast prickly pear, cane cholla, bush-mallow (*Malacothamnus fasciculatus*), and yellow bush-penstemon (*Keckiella antirrhinoides*). Coastal sage scrub found off-site is comprised of a similar plant species.

1.4.2.4 Disturbed Coastal Sage Scrub (32500)

Portions of the west-facing slopes of Monserate Mountain were mapped as ‘disturbed’ coastal sage scrub where previously removed sage scrub vegetation is recovering. In these areas, there is a mixture of sage scrub plant species with annual grasses, mustards, and other grassland elements as described in Section 4.1.2 of this report. Coastal sage shrubs provide 25-50 percent absolute cover in these areas. Disturbed coastal sage scrub covers approximately 30.6 acres (7.9 percent) of the site. Disturbed coastal sage scrub is also found off-site.

1.4.2.5 Southern Mixed Chaparral (37120)

Southern mixed chaparral is the second most dominant native plant community within the boundaries of Meadowood site. Chaparral is characterized by deep-rooted evergreen leafy shrubs that form dense and often impenetrable canopy. This plant community frequently occurs on dry, rocky and steep terrain. It generally grows from four to 15 feet in height with little to no understory. Southern mixed chaparral covers approximately 19.6 acres (5.0 percent) of the site. Southern mixed chaparral is also found north of the site.

Different subtypes of chaparral have been described based on the dominant plants present. The type present on site is southern mixed chaparral. Plants typical of this community are chamise (*Adenostoma fasciculatum*), manzanitas (*Arctostaphylos* and *Xylococcus* spp.), scrub oak (*Quercus berberidifolia*), wild-lilacs (*Ceanothus* spp.), holly-leaved redberry (*Rhamnus ilicifolia*), mountain-mahogany (*Cercocarpus* spp.) toyon (*Heteromeles arbutifolia*), and holly-leaved cherry (*Prunus ilicifolia*). Other plants that may also be present are sugar bush, poison-oak (*Toxicodendron diversilobum*), wild honeysuckle (*Lonicera subspicata*), and white-flowered currant (*Ribes indecorum*).

1.4.2.6 Non-Native Trees (11000)

Non-native trees are scattered throughout the southern half of the site associated with developed areas of the site. The majority of the non-native trees are eucalyptus species. The non-native trees cover approximately 8.3 acres (2.1 percent) of the site. Non-native trees are also found in off-site areas.

1.4.2.7 Pastureland (18310)

To the west of the site is a large area devoted to pasture for grazing livestock. The western edge of the Meadowood site boundary occupies some small strips of this pastureland. The pastureland is dominated by non-native annual grasses similar to those found in the annual grassland on site. Pastureland covers approximately 1.5 acres (0.4 percent) of the site. Pastureland is also found off-site primarily to the west of the project.

1.4.2.8 Coast Live Oak Woodland (71160)

Coast live oak woodland is a distinctive and widespread plant community in southern California. Its range encompasses the coastal ranges as well as the coastal slopes of the Transverse and Peninsular mountains, from Los Angeles County southward to northern Baja California, Mexico. It is typically associated with north-facing slopes and deep canyons, as well as along stream courses. This upland habitat is comprised almost exclusively of coast live oak (*Quercus agrifolia*), which is evergreen and drought-tolerant. Coast live oak woodland covers approximately 1.7 acres (0.4 percent) of the site.

On the Meadowood site, coast live oak woodland is represented by a few individual trees and two small groves on moderate to steep slopes in the eastern portion of the site. The oaks are associated with other plant communities occurring on site, including coastal sage scrub, southern mixed chaparral, and annual grassland. Coast live oak woodland is also found off-site as small patches of oaks.

1.4.2.9 Willow/Mule Fat Scrub (63300)

A small isolated drainage crosses the western boundary of the site but occurs mostly off-site. This drainage supports less than 0.1 acres of willow/mule fat scrub and is lined with a few small arroyo willows (*Salix lasiolepis*) and equal mix of mule fat (*Baccharis salicifolia*). This disturbed riparian vegetation type was separated from southern willow scrub based on its sparse shrub cover and lack of mature trees. The drainage is a result of runoff from the upland agricultural activities and is surrounded by pasture (non-native grasses).

1.4.2.10 Southern Willow Scrub (63320)

Southern willow scrub is found within or adjacent to off-site improvement areas east of Horse Ranch Creek. This vegetation community is dominated by willows (*Salix* spp.) with sparse cover of mule fat. This vegetation community is not found within the Meadowood site boundaries but is associated with off-site improvements.

1.4.2.11 Southern Arroyo Willow Riparian Forest (61320)

Southern arroyo willow riparian forest is found within or adjacent to off-site improvement areas around Horse Ranch Creek and the San Luis Rey River and its tributaries. This vegetation community is dominated by arroyo willows (*Salix lasiolepis*). Cottonwood trees (*Populus fremontii*), mule fat, *Arrundo donax*, and tamarisk (*Tamarix* sp.) are also present. This vegetation community is not found within the Meadowood site boundaries but is associated with off-site improvements.

1.4.2.12 Freshwater Marsh (52400)

Small freshwater marsh areas are dominated by cattails (*Typha* sp.) and occur within or adjacent to off-site improvement areas at the edges of riparian vegetation associated with Horse Ranch Creek and runoff from the orchards. This vegetation community is not found within the Meadowood site boundaries but is associated with off-site improvements.

1.4.2.13 Open Water Ponds (13100)

The site includes two artificial detention basins, or irrigation ponds, used to store water for agricultural purposes supporting traces of riparian vegetation along edge. There are also two ponds in the central portion of the site within the citrus and avocado orchards and a part of a third, located on site. The vegetation surrounding these open water features is not comprised of a distinct vegetation type or plant community and is not delineated as jurisdictional wetlands (GLA 2007). Open water ponds cover approximately 0.7 acres (0.2 percent) of the site.

1.4.2.14 Disturbed and Developed Areas (11000, 12000, and 13000)

A network of graded dirt roads has been created to provide access throughout the site, reaching various portions of the citrus and avocado orchards, as well as adjacent slopes. Locked gates are located across certain roads at fence lines that mark the northern and western boundaries of the site. Most of the dirt roads are maintained by periodic mechanical scraping. Two small areas in the extreme southern and central areas of the site have houses with landscaped yards. Developed areas off-site may also include paved roads. Graded and developed areas cover approximately 28.7 acres (7.4 percent) of the site. Off-site areas along roads have ruderal vegetation lining the road edges.

1.4.3 FLORA

The flora found on site is consistent with the surrounding natural areas and agricultural lands in northern San Diego County. The majority of the site is used for agriculture and contains citrus and avocado orchards and agriculture

fields. These fields include exotic grasses like wild oats, ripgut grass and red brome, as well as black mustard and short-pod mustard. Common plants found in the native scrub and chaparral include laurel sumac, California sagebrush, saw-toothed goldenbush, deerweed, white sage, black sage, California buckwheat, chamise, manzanitas, and scrub oak. A complete inventory of the plant species that were observed on the site is included as Appendix C.

1.4.4 FAUNA

Wildlife diversity on the site is representative of the region for all vegetation communities present on the Meadowood site. The highest species diversity occurs along the ridges and slopes of Monserate Mountain in the northeast corner of the site. All wildlife species recorded on the site are listed in Appendix D.

The butterfly fauna on the site has been characterized more thoroughly than any other invertebrate group because butterflies are diurnal and conspicuous. Eleven butterfly species were identified along with 17 other invertebrate species.

Common reptiles and amphibians observed were side-blotched lizard (*Uta stansburiana*) and western fence lizard (*Sceloporus occidentalis*). Twelve amphibians and reptiles were detected on site by NRC and Cadre Environmental.

Common resident bird species recorded were California quail (*Callipepla californica*), red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaidura macroura*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), Cassin's kingbird (*Tyrannus vociferans*), western scrub-jay (*Aphelocoma californica*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), bushtit (*Psaltirparus minimus*), Bewick's wren (*Thryomanes bewicki*), wrentit (*Chamaea fasciata*), northern mockingbird (*Mimus polyglottos*), California thrasher (*Toxostoma redivivum*), spotted towhee (*Pipilo maculatus*), California towhee (*Pipilo crissalis*), song sparrow (*Melospiza melodia*), house finch (*Carpodacus mexicanus*) and lesser goldfinch (*Carduelis psaltria*). Fifty-seven (57) bird species were observed on site.

Mammals recorded on the Meadowood site included the Audubon's cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), Botta's pocket gopher (*Thomomys bottae*), woodrat (*Neotoma* sp.), and coyote (*Canis latrans*).

1.4.5 SENSITIVE PLANT SPECIES

No sensitive plant species have been detected on the Meadowood site. Table III provides a list of the sensitive plant species potentially occurring but not observed on site, based on records from CDFG's CNDDDB (2007) for the 7.5-minute USGS *Temecula*, *Pechanga*, *Bonsall* and *Pala* quadrangles. None of the species have a high potential to occur on site.

1.4.6 SENSITIVE WILDLIFE SPECIES

Table IV provides a list of the sensitive wildlife species observed on the Meadowood site or in and around off-site improvement areas, as well as other sensitive wildlife potentially occurring but not observed on site. Wildlife species potentially occurring on site were determined based on a review of species records from the CNDDDB (2008) for the 7.5-minute USGS *Temecula*, *Pechanga*, *Bonsall* and *Pala* quadrangles and USFWS federal species occurrence data. Species occurrence data from the USFWS are presented on Exhibit 5 and CNDDDB records are presented on Exhibit 6.

TABLE III

SENSITIVE PLANT SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE

The following table lists the known status of the 21 sensitive plant species occurrences from the California Natural Diversity Database (CNDDB) for the USGS Temecula, Pechanga, Bonsall and Pala quadrangles State ranking codes and USFWS and CDFG status notes are taken directly from the CNDDB.

Scientific Name	Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site	Potential to Occur on Site	Factual basis for determination of occurrence potential
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-verbena	1B	HABITAT: Annual herb found in chaparral, coastal sage scrub, and desert dunes or sandy environments. DISTRIBUTION: Orange, Riverside, San Bernardino, and San Diego counties. Arizona and Baja California from 80 to 1600 m elevation.	Not Detected	Low	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Ambrosia pumila</i>	San Diego ambrosia	FE, 1B	HABITAT: rhizomatous herb found in chaparral, coastal scrub, valley and foothill grassland, vernal pools, often in disturbed areas. DISTRIBUTION: Riverside and San Diego counties, and Baja California, from 20 to 415 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Arctostaphylos rainbowensis</i>	rainbow manzanita	1B	HABITAT: Evergreen shrub found in chaparral. DISTRIBUTION: S. Riverside and n. San Diego counties, from 225 to 640 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Jaeger's milk-vetch	1B	HABITAT: Shrub found in chaparral, Cismontane woodland, coastal sage scrub, valley and foothill grassland. DISTRIBUTION: Riverside and San Diego counties from 365 to 915 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Berberis nevadensis</i>	Nevin's barberry	FE, SE, 1B	HABITAT: Evergreen shrub found in chaparral, Cismontane woodland, coastal sage scrub, riparian scrub that is sandy or gravelly. DISTRIBUTION: Los Angeles, Riverside, San Bernardino and San Diego counties found from 295 to 825 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.

TABLE III
SENSITIVE PLANT SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE

<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	1B	HABITAT: Bulbiferous herb found in closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland and vernal pools. DISTRIBUTION: Riverside and San Diego counties and Baja California, from 30 to 1615 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Ceanothus cyaneus</i>	Lakeside ceanothus	1B	HABITAT: Evergreen shrub found in closed-cone coniferous forest and chaparral. DISTRIBUTION: Riverside and San Diego counties, and Baja California, from 235 to 755 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Ceanothus ophiophilus</i>	Vail Lake ceanothus	FE, SE, 1B	HABITAT: Evergreen shrub found in chaparral (gabbroic or pyroxenite-rich outcrops). DISTRIBUTION: Riverside county from 580 to 1065 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	1B	HABITAT: Annual herb found in chenopod scrub, meadows and seeps, playas, riparian woodland and valley and foothill grassland. DISTRIBUTION: Orange, Riverside, San Bernardino and San Diego counties from 0 to 480 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	1B	HABITAT: Annual herb found in coastal bluff scrub and coastal dunes. DISTRIBUTION: Los Angeles, Orange and San Diego counties and Baja California from 3 to 100 m elevation.	Not Detected	Low	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Chorizanthe polygonoides</i> var. <i>longispina</i>	long-spined spineflower	1B	HABITAT: Annual herb found in chaparral, coastal scrub, meadows and seeps, valley and foothill grassland. DISTRIBUTION: Riverside and San Diego counties, and Baja California, from 30 to 1450 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Dodecahema leptoceras</i>	slender-horned spineflower	FE, SE, 1B	HABITAT: Annual herb found in chaparral, Cismontane woodland, coastal scrub. DISTRIBUTION: Los Angeles, Riverside and San Bernardino counties from 200 to 760 m elevation.	Not Detected	Low	Field surveys conducted during this species' optimal survey period did not detect this species on-site.

TABLE III
SENSITIVE PLANT SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE

<i>Horkelia cuneata</i> <i>ssp. puberula</i>	mesa horkelia	1B	HABITAT: Perennial herb found in chaparral, Cismontane woodland and sandy or gravelly coastal scrub. DISTRIBUTION: Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo and Ventura counties from 70 to 810 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Lasthenia glabrata</i> <i>ssp. coulteri</i>	Coulter's goldfields	1B	HABITAT: Annual herb found in marshes and swamps, playas and vernal pools. DISTRIBUTION: Kern, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, San Luis Obispo, Santa Rosa Island, Tulare and Ventura counties; and Baja California from 1 to 1220 m elevation.	Not Detected	Low	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	1B	HABITAT: Annual herb found in chaparral and coastal scrub. DISTRIBUTION: Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino and San Diego counties, Santa Cruz Island and Baja California from 1 to 885 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Monardella hypoleuca</i> ssp. <i>lanata</i>	felt-leaved monardella	1B	HABITAT: rhizomatous herb found in chaparral and cismontane woodland. DISTRIBUTION: Orange and San Diego counties, and Baja California, from 300 to 1190 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Navarretia fossalis</i>	spreading navarretia	FE, 1B	HABITAT: Annual herb found in chenopod scrub, marshes and swamps, playas and vernal pools. DISTRIBUTION: Los Angeles, Riverside, San Diego, San Luis Obispo counties and Baja California, from 30 to 1300 m elevation.	Not Detected	Low	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Nolina cismontana</i>	chaparral nolina	1B	HABITAT: Evergreen shrub found in chaparral and coastal scrub. DISTRIBUTION: Los Angeles, Orange, San Diego and Ventura counties from 140 to 1275 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.

TABLE III

SENSITIVE PLANT SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE

<i>Satureja chandleri</i>	San Miguel savory	1B	HABITAT: Perennial herb found in chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. DISTRIBUTION: Orange, Riverside and San Diego counties and Baja California, from 120 to 1075 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Senecio ganderi</i>	Gander's ragwort	1B	HABITAT: Perennial herb found in chaparral (bums and gabbroic outcrops) DISTRIBUTION: Riverside and San Diego counties from 400 to 1200 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Tetradlea dioica</i>	Parry's tetradlea	1B	HABITAT: Deciduous shrub found in chaparral and coastal sage scrub. DISTRIBUTION: Orange, Riverside, and San Diego counties, and Baja California, from 165 to 1000 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.

USFWS

FE: Species designated as Endangered under the Federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."
 FT: Species designated as Threatened under the Federal Endangered Species Act. Threatened = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range."
 FPE: Proposed for federal listing as Endangered.
 FPT: Proposed for federal listing as Threatened

CDFG

ST: Threatened = "a species that, although not threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act (California Endangered Species Act)."
 SE: Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."
 SSC: Species of Special Concern.

CNPS

1A Plants Presumed Extinct in California
 1B Plants Rare, Threatened, or Endangered in California and Elsewhere
 2 Plants Rare, Threatened, or Endangered in California But More Common Elsewhere
 3 Plants About Which We Need More Information-A Review List
 4 Plants of Limited Distribution – A Watch List

TABLE IV

**SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS**

The following table lists the known status of the sensitive wildlife species detected or potentially occurring on the Meadowwood site and contains all wildlife species occurrences from the California Natural Diversity Database (CNDDB) for the USGS Temecula, Pechanga, Bonsall and Pala quadrangles. State ranking codes and USFWS and CDFG status notes are taken directly from the CNDDB. Definitions for conservation status codes and on-site status determinations are provided at the bottom of the table.

Scientific Name	Common Name	Sensitivity Code & Status	Habitat Preference/ Requirements	Verified On Site	Potential to Occur on Site	Factual basis for determination of occurrence potential
Fish						
<i>Gila orcutti</i>	arroyo chub	SC, Group 1	HABITAT: The arroyo chub is adapted to surviving in the warm fluctuating streams of the Los Angeles Plain. They prefer slow moving or backwater sections of warm to cool streams with substrates of sand or mud. The depth of the stream is typically greater than 40 centimeters. DISTRIBUTION: The native range of the arroyo chub includes the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita rivers and also Malibu and San Juan creeks. This species is common at three localities within its native range, namely the upper Santa Margarita River and its tributary, De Luz Creek; Trabuco Creek below O'Neill Park and San Juan Creek drainage; and Malibu Creek.	Not Detected	None	No natural streams with permanent water on-site.
Amphibians						
<i>Bufo californicus</i>	arroyo toad	FE, SC, Group 1	HABITAT: Restricted to open riparian woodlands and alluvial habitats, where it breeds in shallow, gravelly, slow-moving streams and pools. It is a habitat specialist, requiring exposed shallow, gravel- or sand-based pools with low current velocity and little marginal vegetation in streams free of predatory fishes. DISTRIBUTION: Foothill regions in southern California below 3,000 ft (900 m) elevation from San Luis Obispo County to Baja California. It historically occurred along the length of drainages, including coastal areas, but now survives generally in the headwaters as small isolated populations.	Detected on-site and in or around proposed off-site improvement areas (Cadre).	High	Small area of low quality foraging/aestivation habitat on site just south of SR 76.
<i>Spea</i> (= <i>Scaphiopus</i>) <i>hammondi</i>	western spadefoot	SC, Group 2	HABITAT: Arid and semi-arid regions in the lowlands and foothills (below 4,500 feet) in washes, river floodplains,	Detected (Cadre)	High	

TABLE IV

**SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS**

			alluvial fans, playas, and alkali flats. DISTRIBUTION: Primarily in Central Valley and adjacent foothills, and in the Coast Ranges from Redding to northwest Baja California. Now believed to be extirpated from most of southern California.			
Reptiles						
<i>Aspidoscelis hyperythrus beldingi</i>	Belding's orange- throated whiptail	SC, Group 2	HABITAT: Open sandy areas associated with floodplains, as well as rocky areas in nearby brush and woodland. DISTRIBUTION: North of Baja California found in western San Diego County, Orange County, western Riverside County, and extreme southwestern San Bernardino County.	Detected	High	
<i>Aspidoscelis tigris stejnegeri</i>	coastal western whiptail	Group 2	HABITAT: Semiarid rocky canyon slopes, gravelly washes, and sandy flats, as well as dirt trails, in coastal sage scrub, chaparral, open woodland, and desert. DISTRIBUTION: Orange and San Bernardino counties south into Baja California, from sea level to approximately 2000 meters.	Detected (Cadre)	High	
<i>Charina trivirgata</i>	rosy boa	Group 2	HABITAT: Sage scrub, chaparral, riparian scrub, and riparian woodland. DISTRIBUTION: Los Angeles and Riverside counties south to northwestern Baja California, from sea level to approximately 1250 meters.	Not Detected	Moderate	Field surveys and pitfall trapping conducted during this species' optimal survey period did not detect this species on-site.
<i>Crotalus ruber ruber</i>	northern red rattlesnake	SC, Group 2	HABITAT: Desert scrub, coastal sage scrub, chaparral, and woodland, often in association with rock outcrops. Occasionally occurs in grasslands and perimeter of cultivated fields. DISTRIBUTION: Below 4,000 ft (1,200 m), occasionally higher, from southern San Bernardino and western Riverside County south through San Diego County.	Detected	High	
<i>Diadophis punctatus similis</i>	San Diego ringneck snake	SC, Group 2	HABITAT: Moist environments within chaparral and grassland, as well as riparian woodland, often around and under rocks, rotting logs, bark, and boards. DISTRIBUTION: Orange County to northern Baja California, to approximately 2000 m elevation.	Detected (Cadre)	High	

TABLE IV
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS

<i>Emys</i> (= <i>Clemmys</i>) <i>marmorata</i> <i>pallida</i>	southwestern pond turtle	SC, Group 1	HABITAT: Wide variety of wetlands, including ponds, marshes, lakes, streams, irrigation ditches, and vernal pools. Aquatic habitats with adequate vegetative cover and exposed basking sites are utilized. DISTRIBUTION: Found in Alameda, Kern, Los Angeles, Monterey, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Santa Clara, Santa Cruz and Ventura counties.	Not Detected	Low	Field surveys around man-made ponds conducted during this species' optimal survey period did not detect this species on-site. No natural bodies of water on-site.
<i>Eumeces</i> <i>skiltonianus</i> <i>interparietalis</i>	Coronado skink	SC, Group 2	HABITAT: Grassland, sage scrub, chaparral, and mixed woodland, associated with streams, rocks, logs, and leaf litter, which provide cover and feeding opportunities. DISTRIBUTION: This subspecies is not recognized by Stebbins (2004), but is incorporated in with nominate <i>E. s. skiltonianus</i> . The nominate subspecies is found west of the Rocky Mountains; from southern British Columbia to northern Baja California. <i>E. s. interparietalis</i> is restricted to Riverside and San Diego counties and northwest Baja California.	Detected (Cadre)	High	
<i>Phrynosoma</i> <i>coronatum</i> (<i>blainvillei</i>)	coast (San Diego) horned lizard	SC, Group 2	HABITAT: Generally occurs in sage scrub and chaparral, but can also be found in coniferous forest and broadleaf woodland. It is usually found in sandy areas, especially where harvester ants (<i>Pogonomyrmex</i> spp.) are found. DISTRIBUTION: Southern Santa Barbara and Kern Counties southward through southwest San Bernardino and western Riverside Counties, into Baja California, Mexico, at locations approximately between 10 and 2130 meters.	Detected (Cadre)	High	

TABLE IV

**SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS**

<i>Thamnophis hammondi</i>	two-striped garter snake	SC, Group 1	HABITAT: Perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation, including grassland, sage scrub and chaparral. They also inhabit shallow rivers and stock-ponds bordered by thick riparian vegetation. DISTRIBUTION: Coastal slope from Monterey County to northern Baja California from near sea level to 4,500 ft (1,370 m) elevation.	Detected (Cadre)	High	
Birds						
<i>Accipiter cooperii</i>	Cooper's hawk	SC, Group 1	HABITAT: A variety of native and non-native woodlands, from the coast to the mountains. It nests primarily in moderately dense oak and riparian woodlands. DISTRIBUTION: Throughout most of United States. In southern California, it is fairly common winter visitor and uncommon summer resident west of the deserts.	Not detected on-site. Detected in or around proposed off-site improvement areas.	High	Field surveys conducted during this species' optimal survey period did not detect this species on-site. No dense woodlands on-site. Detected around the San Luis Rey River and Horse Ranch Creek.
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	SC, Group 1	HABITAT: Most foothill slopes and ridges with low-growing shrub cover, typically coastal sage scrub and non-arborescent types of chaparral. Inhabits rocky slopes, often intermixed with grassy areas. DISTRIBUTION: Occurs west of the deserts from Ventura County south into Baja California.	Detected	High	
<i>Amphispiza belli belli</i>	Bell's sage sparrow	SC, Group 1	HABITAT: Arid and semi-arid foothill slopes and ridges with low-growing shrub cover, typically in non-arborescent types of chaparral and secondarily in coastal sage scrub. DISTRIBUTION: Year-round resident found west of the higher mountains, from Trinity County south to northwestern Baja California.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.

TABLE IV

**SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS**

<i>Aquila chrysaetos</i>	golden eagle	SC, Group 1	HABITAT: Open areas including grasslands, brushy or open wooded areas. It typically nests on cliffs and rock outcrops in more remote, rugged, mountainous areas. DISTRIBUTION: Throughout much of Northern Hemisphere; uncommon resident in southern California.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Athene cunicularia</i>	burrowing owl	SC, Group 1	HABITAT: Inhabits relatively flat and open areas such as grasslands, coastal dunes and agricultural areas; requires the presence of rodent burrows for nesting and roosting activities. DISTRIBUTION: An uncommon to scarce local resident in southern California; more widespread in winter. Numbers have declined in past two decades.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Buteo lineatus</i>	Red-shouldered hawk	Group 1	HABITAT: Forages along edges of wet meadows, swamps, and emergent wetlands. Nests in dense riparian habitats. DISTRIBUTION: Locally uncommon to common resident along coast and fairly common in woodlands west of southern deserts in California.	Detected on site and in or around proposed off-site improvement areas	High	
<i>Butorides virescens</i>	green heron	Group 2	HABITAT: Nests in valley foothill and desert riparian habitats and feeds in fresh emergent wetland, lacustrine, and slow-moving riverine habitats. DISTRIBUTION: Uncommon resident throughout most of California.	No detected on-site. Detected in or around proposed off-site improvement areas	Low	Field surveys conducted during this species' optimal survey period did not detect this species on-site. Limited riparian areas on-site.
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren	SC, Group 1	HABITAT: Clumps of prickly pear and cholla cactus within coastal sage scrub, on west- and south-facing slopes from the coast to the inner foothills. DISTRIBUTION: Coastal Los Angeles, Orange, and San Diego counties, south to northwestern Baja California.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Cathartes aura</i>	turkey vulture	Group 1	HABITAT: Extensive open areas. Cliffs, rock outcrops, ledges, cavities and logs used for nesting. DISTRIBUTION: Common during the breeding season	Detected on site and in or around	High	

TABLE IV
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS

			throughout most of California.	proposed off-site improvement area		
<i>Circus cyaneus</i>	northern harrier	SC, Group 1	HABITAT: Grasslands, agricultural fields, fresh- and brackish-water marshes. DISTRIBUTION: Throughout most of North America, including all of California below the mountains; however, breeding localities in Southern California are sparse.	Detected	High	
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	SE, Group 1	HABITAT: Breed in dense willow and cottonwood stands in river floodplains. DISTRIBUTION: Summer season resident in California, nearly throughout in appropriate habitat.	Not Detected	Low	Field surveys conducted during this species' optimal survey period did not detect this species on-site. No dense woodlands on-site.
<i>Dendroica petechia brewsteri</i>	yellow warbler	SC, Group 2	HABITAT: For breeding, usually riparian woodlands, but occasionally in montane chaparral and coniferous forests with dense ceanothus and manzanita understory. DISTRIBUTION: Throughout most of North America. In California, formerly bred nearly throughout in appropriate habitat; now restricted mostly to northern California and locally in southern California in Coast Ranges.	No detected on-site. Detected in or around proposed off-site improvement areas	High	Field surveys conducted during this species' optimal survey period did not detect this species on-site. Detected around the San Luis Rey River and Horse Ranch Creek off-site.
<i>Elanus leucurus</i>	white-tailed kite	Group 1	HABITAT: Inhabits herbaceous and open stages of most habitats, mostly in cismontane California. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. DISTRIBUTION: Common to uncommon resident in coastal and valley lowlands, rarely found away from agricultural areas.	No detected on-site. Detected in or around proposed off-site improvement areas	High	Field surveys conducted during this species' optimal survey period did not detect this species on-site. Detected around the San Luis Rey River and Horse Ranch Creek off-site.
<i>Empidonax traillii eximius</i>	southwestern willow flycatcher	FE, SE, Group 1	HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense thickets for nesting. These can include vegetation dominated by willows, tamarisk, and even coast live oak. DISTRIBUTION: Summer season resident of central and southern California, as well as the lower Colorado River.	Not Detected	Low	Confirmed absent during USFWS protocol presence/absence surveys off-site. No dense woodlands on-site.
<i>Icteria virens</i>	yellow-breasted chat	SC, Group 1	HABITAT: For breeding, riparian scrub and woodland with	Detected in or around	High	Field surveys conducted during this species' optimal survey

TABLE IV
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS

<i>Icthyophaga exilis</i>	least bittern	SC, Group 2	dense cover, featuring willows and mulefat, as well as wild grape, blackberry, and poison-oak; occasionally in non-riparian dense scrub. DISTRIBUTION: Summer season resident in California, nearly throughout in appropriate habitat.	proposed off-site improvement areas	Low	period did not detect this species on-site. Detected around the San Luis Rey River and Horse Ranch Creek off-site.
<i>Plegadis chihi</i>	white-faced ibis	SC, Group 1	HABITAT: Migrant and wintering white-faced ibis may be found foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries. DISTRIBUTION: The white-faced ibis is an uncommon summer resident in sections of southern California, a rare visitor in the Central Valley, and is more widespread in migration. Formerly more common, especially in the San Joaquin Valley, this species no longer breeds regularly anywhere in California.	Detected in or around proposed off-site improvement areas	High	Field surveys conducted during this species' optimal survey period did not detect this species on-site. Migrant birds found along Horse Ranch Creek off-site.
<i>Poliophtila californica</i>	California gnatcatcher	FT, SC, Group 1	HABITAT: Principally, the various associations of coastal sage scrub (Venturan, Riversidean, Diegan, Maritime, etc.), but also in chamise chaparral, especially where it occurs in association with sage scrub. Occasionally utilizes other habitats, such as riparian scrub, riparian woodland, and even grassland, outside the breeding season. DISTRIBUTION: Southeastern Ventura County (locally), Los Angeles County (locally, primarily in the southern portion), extreme southwestern San Bernardino County, western Riverside County, Orange County, and San Diego County west of the mountains. Also found throughout much of Baja California.	Detected	High	
<i>Sialia mexicana</i>	western bluebird	Group 2	HABITAT: Breeds in open oak woodlands, riparian deciduous trees, conifers with herbaceous understory. In winter uses open habitats DISTRIBUTION: Fairly common to common year-round throughout much of California.	Detected on site and in or around proposed off-site improvement	High	

TABLE IV
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS

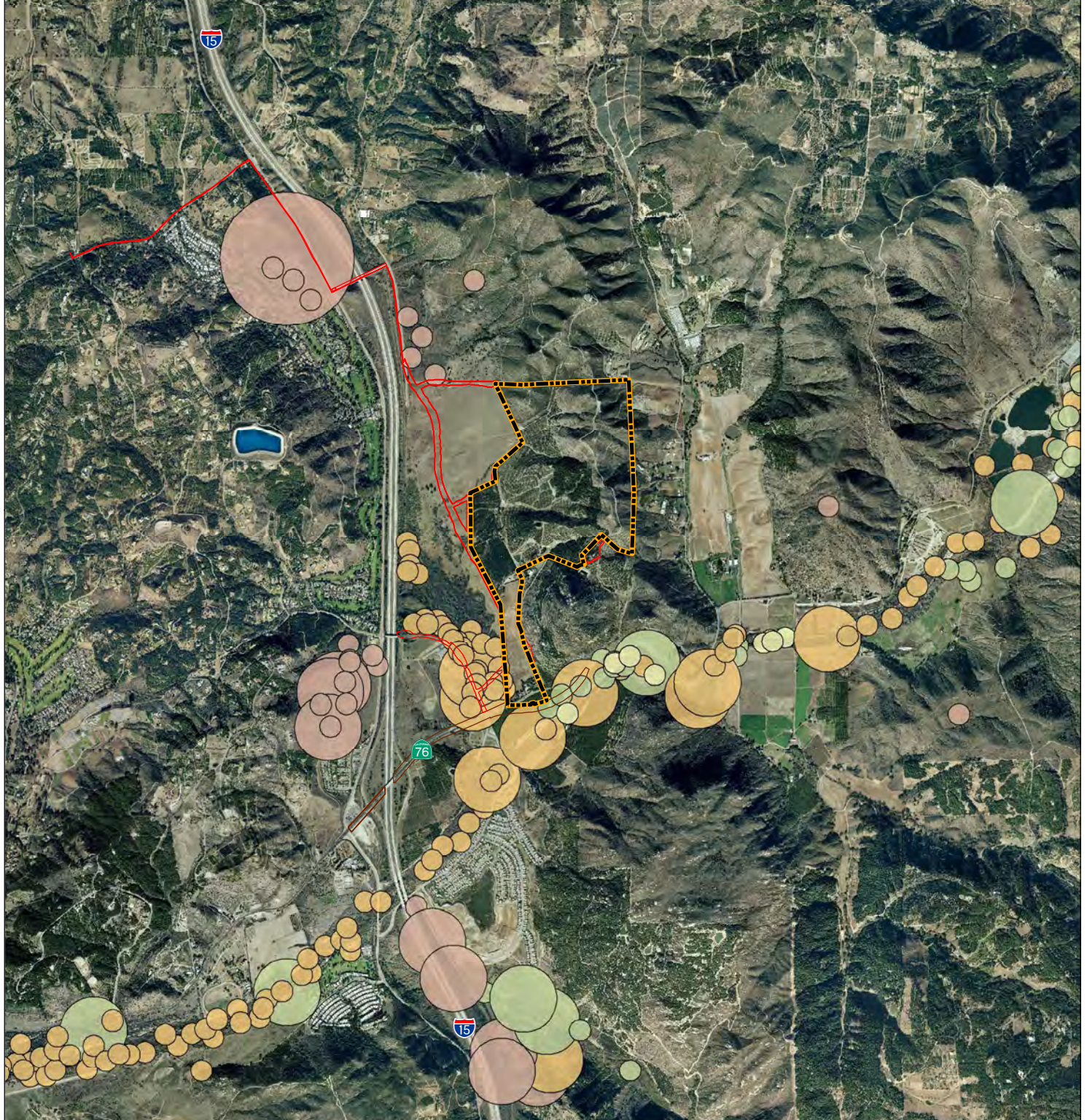
	barn owl	Group 2	HABITAT: Open habitats including grassland, chaparral, riparian, and other wetlands. DISTRIBUTION: Common resident throughout California outside of dense forests and open desert habitats.	ment areas Detected on site and in or around proposed off-site improvement areas	High	
<i>Tyto alba</i>						
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE, SE, Group 1	HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense willow thickets for nesting. DISTRIBUTION: Summer season resident of central and southern California, and northwest Baja California. Additional populations are in the Owens Valley, Death Valley, and along the lower Colorado River.	Not detected on site. Detected in or around proposed off-site improvement areas	High	Field surveys conducted during this species' optimal survey period did not detect this species on-site. Detected around the San Luis Rey River and Horse Ranch Creek off-site.
Mammals						
<i>Chaetodipus californicus femoralis</i>	Dulzura pocket mouse	SC, Group 2	HABITAT: Occurs in coastal sage scrub, chamise, redshank and montane chaparral, sagebrush, annual grassland, valley foothill hardwood, valley foothill hardwood-conifer, and montane hardwood habitats. DISTRIBUTION: Along the southern California coast.	Not Detected	Moderate	Field surveys and pitfall trapping conducted during this species' optimal survey period did not detect this species on-site.
<i>Chaetodipus fallax fallax</i>	northwestern San Diego pocket mouse	SC, Group 2	HABITAT: Foothill slopes and ridges with vegetated with coastal sage scrub, sagebrush, desert scrub, chaparral, and annual grassland. DISTRIBUTION: Southwestern San Bernardino, western Riverside, and western San Diego counties.	Detected	High	
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	FE, FT, Group 1	HABITAT: Valley and foothill grassland, and coastal sage scrub (often disturbed) with grassy openings and sparse understory. DISTRIBUTION: Western Riverside and northern San Diego counties.	Not Detected	Moderate	Field surveys and pitfall trapping conducted during this species' optimal survey period did not detect this species on-site.
<i>Eumops perotis</i>	western	SC, Group 2	HABITAT: Rugged, rocky areas and high cliffs at low	Not Detected	Low	Field surveys conducted during

TABLE IV
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS








<i>californicus</i>	mastiff bat		elevations in the coastal basins where suitable crevices for roosting are found; forages very high, often over mesquite. It has very specific roosting structure needs, such as crevices that open downward and are at least 5 cm wide and 30 cm deep. They must also be high, as the bat needs 2 to 3 m of drop space to launch itself into flight. DISTRIBUTION: Butte County (rarely) south through southern California coastal mountains and portions of the southeastern deserts, east to western Texas, and south to South America.			this species' optimal survey period did not detect this species on-site.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	SC, Group 2	HABITAT: Prefers open areas, typically occurring in alluvial sage scrub and open sage scrub. DISTRIBUTION: Occurs in coastal southern California from approximately Santa Barbara County south into Baja California.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	SC, Group 2	HABITAT: A variety of arid and semi-arid habitats, in dense brushy vegetation with cactus clumps, rock outcrops, rocky cliffs and slopes, from sea level to 8,500 ft in elevation. DISTRIBUTION: Along the coast from San Luis Obispo County to northwest Baja California, to approximately 2,000 m elevation.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	SC, Group 2	HABITAT: Open ground with soils composed of fine sands. DISTRIBUTION: Restricted to lower elevation grasslands and Coastal Sage associations in the Los Angeles Basin, from approximately Burbank and San Fernando on the northwest to San Bernardino on the northeast, and Cabazon, Hemet, and Aguanga on the east and southeast. Their geographic limits on the southwest are not clear, but probably lie somewhere near the Hollywood Hills.	Not Detected	Moderate	Field surveys conducted during this species' optimal survey period did not detect this species on-site.

TABLE IV
SENSITIVE WILDLIFE SPECIES DETECTED OR POTENTIALLY OCCURRING ON THE MEADOWWOOD SITE
OR NEAR OFF-SITE IMPROVEMENT AREAS

USFWS FE: Species designated as Endangered under the Federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range." FT: Species designates as Threatened under the Federal Endangered Species Act. Threatened = "species likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." FPE: Proposed for federal listing as Endangered. FPT: Proposed for federal listing as Threatened	CDFG ST: Threatened = "a species that, although not currently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this Act (California Endangered Species Act)." SE: Endangered = "a species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes." SSC: Species of Special Concern. FP: Fully protected by the State of California.
County Group 1: Animals that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met. Group 2: Animals that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action	



Caroline Inwood. Natural Resource Consultants. 2 April 2008. Meadowood/GIS/USFWS/species_occ.mxd

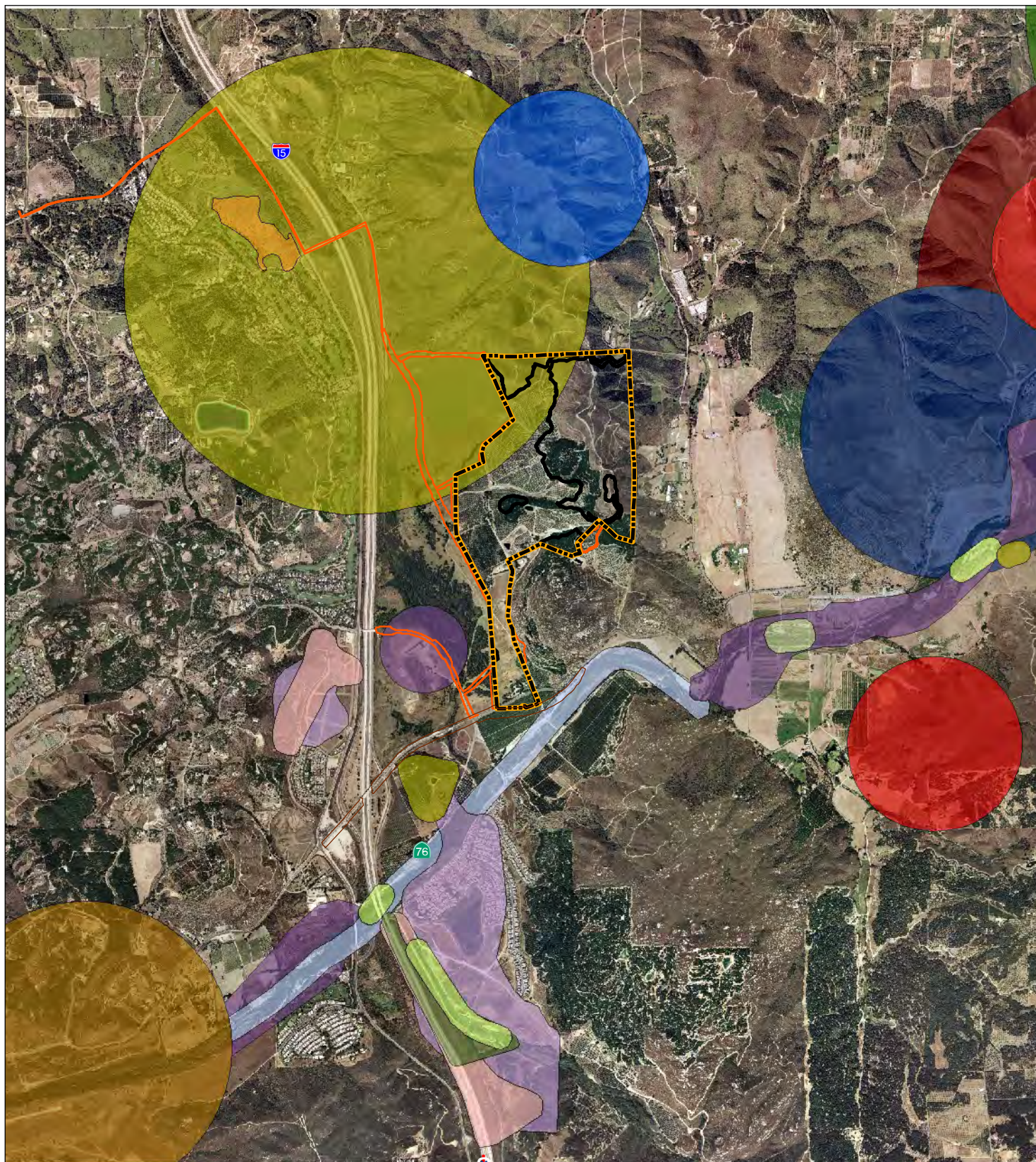
-  Site Boundary
-  Off-site Improvements
-  Proposed SR76 Realignment
-  Arroyo Toad. *Bufo californicus*
-  California gnatcatcher. *Poliptila californica*
-  Least Bell's vireo. *Vireo bellii pusillus*
-  Southwestern willow flycatcher. *Empidonax traillii extimus*



0 1,650 3,300 6,600 Feet
1 inch equals 3,430 feet 1:41,194

EXHIBIT 5: USFWS FEDERALLY LISTED SPECIES OCCURENCES MEADOWOOD | SAN DIEGO COUNTY, CALIFORNIA





Eric Kline, Natural Resource Consultants, 10 September 2008, Proj_GIS/meadowood/workspaces/2008/bio_resources/cnddb.mxd

- | | | |
|--|----------------------------------|--|
| Meadowood boundary | Coronado skink | least Bell's vireo |
| On Site Impact Area | northern red-diamond rattlesnake | least bittern |
| Off-site Improvements | orange-throated whiptail | southern California rufous-crowned sparrow |
| SR76 Realignment | rosy boa | southwestern willow flycatcher |
| Southern Cottonwood Willow Riparian Forest | San Diego desert woodrat | white-faced ibis |
| chaparral nolina | Cooper's hawk | yellow warbler |
| Parry's tetracoccus | coastal California gnatcatcher | yellow-breasted chat |
| Robinson's pepper-grass | coastal cactus wren | |
| arroyo toad | golden eagle | |



0 1,500 3,000 6,000 Feet
1 inch = 3,030 feet 1:36,327

EXHIBIT 6: CNDDDB SPECIAL STATUS SPECIES OCCURRENCES
MEADOWOOD | SAN DIEGO COUNTY, CALIFORNIA

1.4.6.1 Federal and State Listed Species Found on or in the Immediate Vicinity of the Site

Two federally listed wildlife species, arroyo toad (endangered) and California gnatcatcher (threatened), have been detected on the site. Two other wildlife species, least Bell's vireo and southwestern willow flycatcher, listed by the USFWS and CDFG as endangered are known to occur in the immediate vicinity of the Meadowood site. Least Bell's vireo has been detected near off-site improvement areas. These four species are discussed below.

Arroyo Toad *Bufo californicus*

STATUS: Federal Endangered, Group 1.

HABITAT: Restricted to open riparian woodlands and alluvial habitats, where it breeds in shallow, gravelly, slow-moving streams and pools. It is a habitat specialist, requiring exposed shallow, gravel- or sand-based pools with low current velocity and little marginal vegetation in streams free of predatory fishes.

DISTRIBUTION: Foothill regions in southern California below 3,000 ft (900 m) elevation from San Luis Obispo County to Baja California. It historically occurred along the length of drainages, including coastal areas, but now survives generally in the headwaters as small isolated populations.

OCCURRENCE ON SITE: One individual was observed on the site south of the former alignment of SR-76 in 2007 (Cadre 2007).

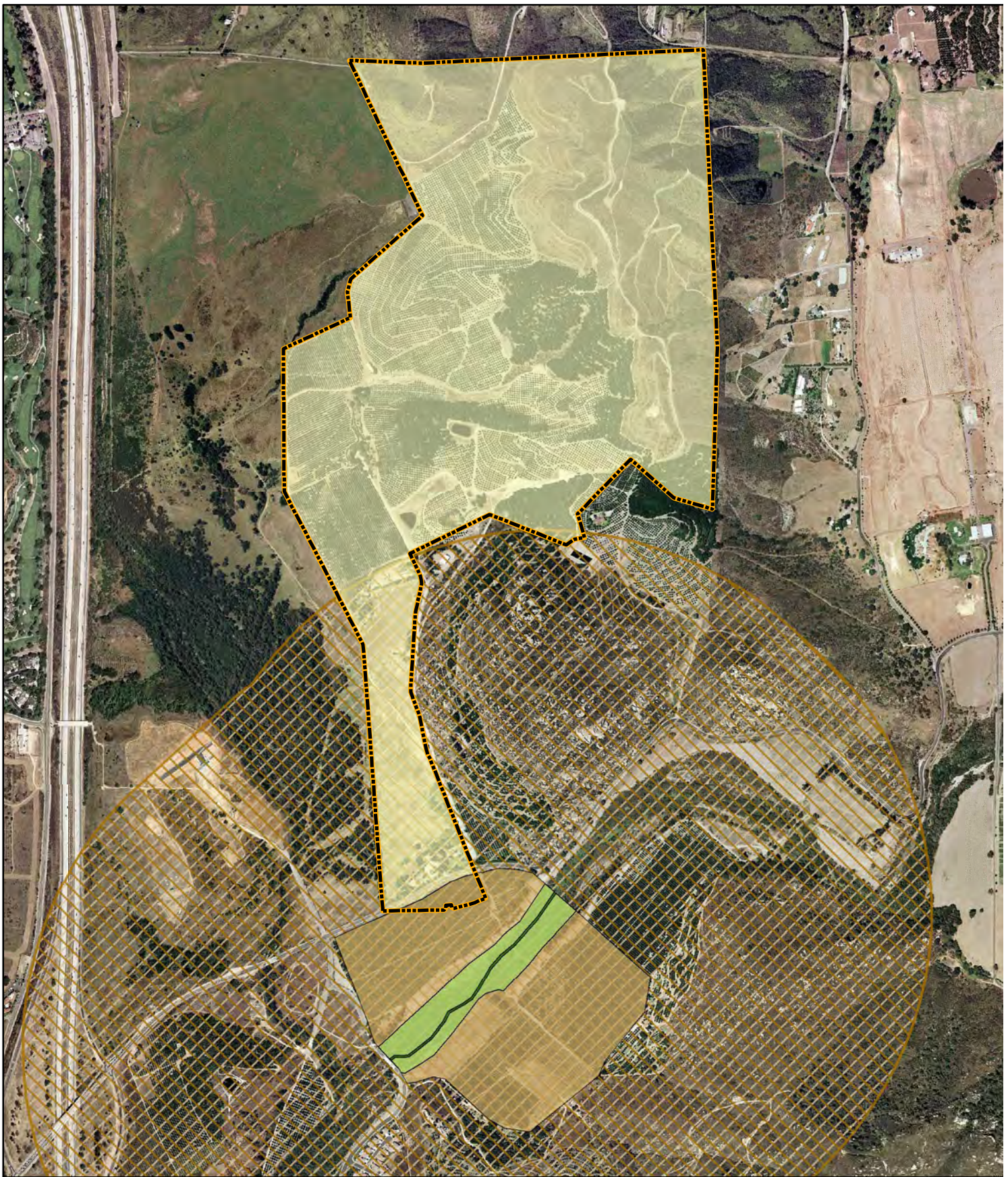
OCCURRENCE OFF-SITE: Several individuals have been observed off-site south of the former alignment of SR-76 and north of the San Luis Rey River between 2003 through 2007 (Cadre 2007).

OPTIMAL SURVEY PERIOD: Breeding season surveys, April to June.

Pitfall trapping included the installation and monitoring of two pitfall trap lines placed parallel and perpendicular to the San Luis Rey River. Additional trap lines were added both north and south of the San Luis Rey River in 2006. All trap lines were monitored for a minimum of 15 days per month from April and September 2003, February and August 2004, February and July 2005, February through August 2006, and March through August 2007. Along with monitoring the trap lines, focused arroyo toad surveys were conducted within the reach of the San Luis Rey River occurring up- and down-stream of the site. The site includes approximately 3.5 acres of low quality foraging and aestivation habitat at the southern edge of the site – south of the former alignment of SR-76. In 2007 one arroyo toad was observed by Cadre Environmental in this area. It is important to note here that widening of SR-76 now obstructs any toad movement between the San Luis Rey River and the Meadowood site and preclude use of the site by arroyo toad. No suitable breeding habitat occurs on the site.

No arroyo toads had been observed within the Meadowood site boundary between 2003 and 2006. In 2007 one individual was observed in the southern most portion of the site's panhandle, just south of the former alignment of SR-76. Several arroyo toads have been recorded off-site. Six individuals arroyo toads were detected during focused arroyo toad surveys within the San Luis Rey River upstream from the site and two individuals were documented using the road network 140 feet south and 400 feet east of the site (south of SR-76) during the 2003 surveys (Cadre 2007). During the 2004 surveys, no arroyo toads were documented using the road network immediately adjacent to the site; however two individuals arroyo toads were documented upstream and one individual was documented downstream from the site within the San Luis Rey River. In 2005, three arroyo toads were observed within the San Luis Rey River southwest of the site. In 2006, 52 arroyo toad observations (pitfall trapping and focused surveys) were made south of the site in the new pitfall trap lines located adjacent to the river. In 2007, four arroyo toads were captured in pitfall traps within/adjacent to the San Luis Rey River (Exhibits 4, 4A, and 4B).

Cadre Environmental identified four categories of arroyo toad habitat on and in the vicinity of the site: potential breeding, high quality foraging/aestivation, low quality foraging/aestivation, and unoccupied habitat (Exhibit 7). Potential breeding habitat is located within the active channel of the San Luis Rey River. High quality foraging/aestivation habitat is found off-site in the lower flood prone areas of the San Luis Rey River dominated by riparian vegetation. Low quality foraging/aestivation habitat is located in the upper flood prone areas of the San Luis Rey River dominated by citrus/avocado groves. The groves have suitable soil conditions, irrigation, and detritus



Caroline Inwood. Natural Resource Consultants. 2 April 2008. Proj_GIS\pardee\meadowood\workspaces\arroyotoad_cadre.mxd

- | | | | |
|--|---|---|--|
|  | Site Boundary |  | Low Quality Arroyo Toad Foraging/Aestivation Habitat |
|  | Potential Arroyo Toad Breeding Habitat |  | Non Occupied Habitat |
|  | High Quality Arroyo Toad Foraging/Aestivation Habitat |  | 1km Radius from High Quality Habitat |



0 600 1,200 2,400 Feet
1 inch equals 1,200 feet 1:14,400

EXHIBIT 7: ARROYO TOAD HABITAT UTILIZATION MEADOWOOD | COUNTY OF SAN DIEGO, CALIFORNIA

layer for burrowing and localized aestivation. The portion of the on site area south of the former alignment of SR-76 is low quality foraging/aestivation habitat. As shown in Exhibit 7, unoccupied habitat is located north of the former alignment of SR-76 and includes the majority of the site. The unoccupied habitat is well within one km from known arroyo toad breeding locations. Low quality habitat extends between 600 and 1,300 feet from the San Luis Rey River north to SR-76.

Excluded Essential Habitat, but no Critical Habitat, for this species has been designated along the San Luis Rey River and its tributaries (Exhibit 8). Near the Meadowood site, it extends into Horse Ranch Creek and onto the site in the southern and western portions. Although the site contains about 8.2 acres of excluded Essential Habitat, only about 3.5 acres was suitable for seasonal arroyo toad use prior to construction of the new SR-76 alignment, including the orange groves at the southern tip of the site south of the former SR-76 alignment. Current construction of the new SR-76 alignment has created a permanent barrier to arroyo toad access to the Meadowood site. In San Diego County, the arroyo toad is found along most major drainages, although it has been extirpated from some and seriously depleted from others. The arroyo toad continues to occur along most of the length of the San Luis Rey River and its range within San Diego County closely parallels that of the least Bell's vireo.

California Gnatcatcher
Poliophtila californica

STATUS: Federal Threatened, Group 1.

HABITAT: Principally, the various associations of coastal sage scrub (Venturan, Riversidean, Diegan, Maritime, etc.), but also in chamise chaparral, especially where it occurs in association with sage scrub. Occasionally utilizes other habitats, such as riparian scrub, riparian woodland, and even grassland, outside the breeding season.

DISTRIBUTION: Southeastern Ventura County (locally), Los Angeles County (locally, primarily in the southern portion), extreme southwestern San Bernardino County, western Riverside County, Orange County, and San Diego County west of the mountains. Also found throughout much of Baja California.

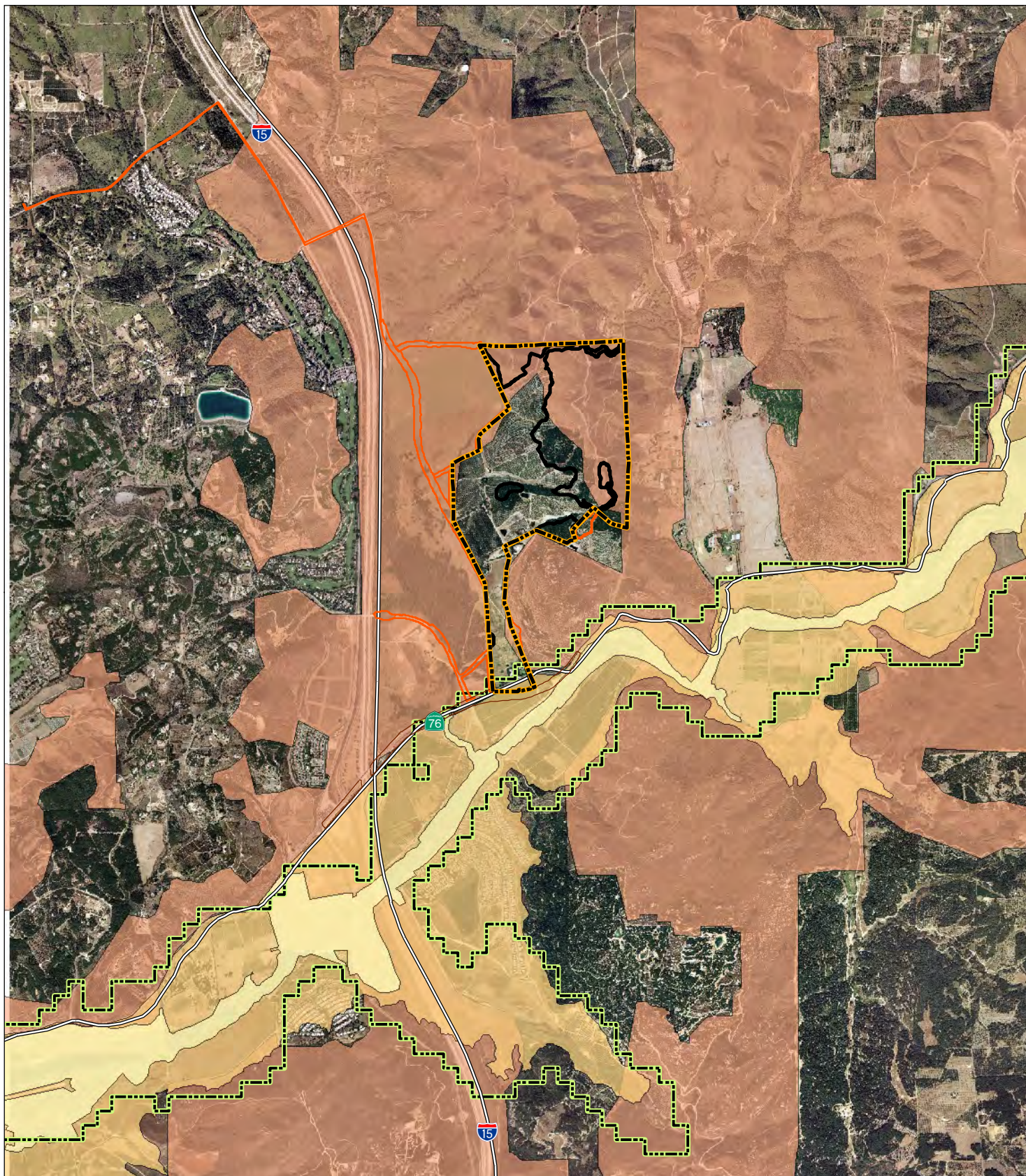
OCCURRENCE ON SITE: Not detected on site during focused surveys conducted in 2003-2004, 2005, 2006, and 2008. An individual (unpaired) gnatcatcher was detected in the northwestern corner of the site in 2007.

OCCURRENCE OFF-SITE: One individual gnatcatcher was detected just off-site in a narrow corridor of riparian scrub in 2004. Two individual gnatcatchers were observed in the vicinity of proposed off-site improvements along Pankey Road in 2007.

OPTIMAL SURVEY PERIOD: Year-round, but mid-February through August for breeding.

Protocol-level surveys for California gnatcatcher conducted on and immediately adjacent to the site in 2003-2004, 2005, 2006, and 2008 did not detect this species in suitable coastal sage scrub habitat on site. One individual was found just off-site in a narrow corridor of riparian scrub in 2004. The small drainage corridor is surrounded by pastureland and citrus/avocado groves and the closest coastal sage scrub habitat is approximately 1,500 feet away. As this individual was not in appropriate breeding habitat, it is presumed to have been a non-resident, possibly dispersing individual. One breeding pair was located approximately 0.4 miles northwest of the site in Pankey Wash just east of I-15. During the 2007 protocol surveys one male California gnatcatcher was observed in the northwestern corner of the site. Also during these surveys two male gnatcatchers were observed in coastal sage scrub along Pankey Road in the vicinity of the proposed Pankey Road and water pipeline off-site improvements (Exhibits 4, 4A, and 4C).

Based on the quality and maturity of the coastal sage scrub on the site and the presence of a male California gnatcatcher in 2007 all coastal sage scrub on the site is, for the purposes of this assessment, assumed to be suitable and occupied California gnatcatcher habitat. Similarly, the adjacent coastal sage scrub to the north of the site and east of I-15 has been labeled as occupied gnatcatcher habitat due to the presence of two males observed along Pankey Road. The occupied habitat includes coastal sage scrub associated with the Pankey Road widening, Pala Mesa Heights Drive, Horse Ranch Creek Road and water line off-site improvements and coastal sage scrub on the site. No California gnatcatchers have been observed south of the site or west of I-15. This area is designated as unoccupied California gnatcatcher habitat. The unoccupied habitat includes coastal sage scrub associated with Pala Mesa Drive, a portion of Horse Ranch Creek Road, water lines, and off-site grading along the southern site edge.



Eric Kline, Natural Resource Consultants, 18 May 2009, Proj_GIS\meadowood\workspaces\2009\bio_resources\critical habitat.mxd

- Site Boundary
- On Site Impact Area
- Off-site Improvements
- SR76 Realignment
- Arroyo Toad. *Bufo californicus*(E, CH designated April 2005) Excluded Essential Habitat
- Southwestern willow flycatcher. *Empidonax traillii eximius*(E, CH designated Oct 2005)
- Least Bell's vireo. *Vireo bellii pusillus*(E, CH designated Feb 1994)
- California gnatcatcher. *Polioptila californica*(T, CH designated 2007)



0 1,550 3,100 6,200 Feet
1 inch = 3,050 feet 1:36,650

EXHIBIT 8: USFWS CRITICAL HABITAT MEADOWOOD | SAN DIEGO COUNTY, CALIFORNIA



Critical Habitat for the California gnatcatcher has been designated throughout much of the region and include all but the central portion of the Meadowood site (USFWS 2007b). There are approximately 166.5 acres of Critical Habitat on site that includes 84.7 acres of Primary Constituent Elements (PCEs) for the California gnatcatcher (Exhibit 8). There are also 2.1 acres of suitable gnatcatcher habitat on site that are not within the boundaries of the Designated Critical Habitat. Off-site improvement areas with PCEs include Horse Ranch Creek Road, Pala Mesa Drive, and water transmission lines.

Suitable breeding habitat for the California gnatcatcher occurs north, south and east of the Meadowood site. However, densities of gnatcatchers in the vicinity of the site are low. The California gnatcatcher is found in higher densities farther north in the Temecula area of extreme southwestern Riverside County, west and south of the town of Bonsall toward the coast and south County, and east of the site in the vicinity of the Pala Indian Reservation. According to the USFWS's 2003 proposed revised Critical Habitat designation for California gnatcatcher, there is a core population of gnatcatcher on the Pala Indian Reservation and a regional north-south corridor through the reservation (USFWS 2003). The Pala Indian Reservation is about seven miles east of Meadowood.

Least Bell's Vireo

Vireo bellii pusillus

STATUS: Federal Endangered; California Endangered, Group 1.

HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense willow thickets for nesting.

DISTRIBUTION: Summer season resident of central and southern California, and northwest Baja California. Additional populations are in the Owens Valley, Death Valley, and along the lower Colorado River.

OCCURRENCE ON SITE: Not detected on site.

OCCURRENCE OFF-SITE: In 2007, six least Bell's vireos were located in southern arroyo willow riparian forest along the San Luis Rey River south of the site, and seven other individuals were located in similar habitat along Horse Ranch Creek in the vicinity of the proposed Pala Mesa Drive. In 2008, five vireos were observed along Horse Ranch Creek.

OPTIMAL SURVEY PERIOD: April to August.

The least Bell's vireo occurs along the San Luis Rey River from I-15 to the coast and along the Santa Margarita River. The Santa Margarita River's closest approach to the Meadowood site is six miles to the northwest. Farther from the site, the species has been found breeding primarily along the San Dieguito River 20-25 miles to the south, with scattered pairs found elsewhere in the county along smaller drainages. In 2007, six least Bell's vireos were located in southern arroyo willow riparian forest along the San Luis Rey River south of the site, and seven other individuals were located in similar habitat along Horse Ranch Creek in the vicinity of the proposed Pala Mesa Drive (Exhibits 4, 4A and 4B). In 2008, five vireos were observed along Horse Ranch Creek in similar locations as found in 2007. All vireos have been observed east of I-15. Least Bell's vireo has not been observed on the site and no suitable habitat for this species is present within the site boundaries. Off-site locations of least Bell's vireo potentially affected by the proposed project are discussed in Section 3.2 of this report.

Based on field observations supplemented by CNDDB records the willow riparian forest vegetation associated with Horse Ranch Creek and the San Luis Rey River is assumed occupied least Bell's vireo habitat. This area includes the off-site improvements for Pala Mesa Drive, Horse Ranch Creek Road, and grading along the southwestern site edge. The riparian vegetation along SR-76 is suitable vireo habitat and is also assumed to be occupied.

The extreme southern portion of the Meadowood site contains 3.1 acres of Designated Critical Habitat that do not contain any PCE's for least Bell's vireo and are not suitable habitat or habitat occupied by this species (Exhibit 8).

Southwestern Willow Flycatcher*Empidonax traillii extimus*

STATUS: Federal Endangered; California Endangered, Group 1.

HABITAT: Riparian scrub and riparian woodland along river and stream courses, preferring dense thickets for nesting. These can include vegetation dominated by willows, tamarisk, and even coast live oak.

DISTRIBUTION: Summer season resident of central and southern California, as well as the lower Colorado River.

OCCURRENCE ON SITE: Not detected on site.

OCCURRENCE OFF-SITE: Not detected in the vicinity of off-site improvement areas.

OPTIMAL SURVEY PERIOD: May to July.

Recent CNDDDB data show four known occurrences of southwestern willow flycatcher in the vicinity of the site from 2000, 2002, and 2006. The nearest record is less than one mile away from the site along the San Luis Rey River (Exhibit 6). USFWS species data show eleven known occurrences of southwestern willow flycatcher within six miles of the project site between 2000 and 2004. One observation was located immediately south of the site across SR-76 and three other flycatcher observations were less than one-half mile upstream of the site (Exhibit 5). No southwestern willow flycatchers were observed on or off-site during protocol presence-absence surveys conducted in 2007 and 2008.

No suitable habitat for this species is present on the site. Suitable, but unoccupied southwestern willow flycatcher habitat occurs in the willow riparian forest vegetation associated with Horse Ranch Creek and the San Luis Rey River. This area includes the off-site improvements for Pala Mesa Drive, Horse Ranch Creek Road, and grading along the southwestern site edge. No occupied southwestern willow flycatcher habitat is present on the site or in any off-site improvement area.

Designated Critical Habitat for this species occurs along the San Luis Rey River and its tributaries and is not present on the site or within off-site improvement areas (Exhibit 8).

Of the relatively few breeding localities of southwestern willow flycatcher in San Diego County, most have been along the Santa Margarita River. Fewer breeding locations have been documented along the San Luis Rey River, and most of these have been downstream from the site. In western San Diego County the species is also found in the vicinity of Chula Vista near the Mexican border.

1.4.6.2 Sensitive Wildlife Species Found on or in the Immediate Vicinity of the Site

The following twenty-one sensitive, but not federal or state endangered or threatened, species have been detected on the Meadowood site or in and around off-site improvement areas. These species locations are shown or discussed on Exhibits 4, 4A, 4B, and 4C.

Western Spadefoot*Spea hammondi*

STATUS: California Species of Special Concern, Group 2.

HABITAT: Arid and semi-arid regions in the lowlands and foothills (below 4,500 feet) in washes, river floodplains, alluvial fans, playas, and alkali flats.

DISTRIBUTION: Primarily in Central Valley and adjacent foothills, and in the Coast Ranges from Redding to northwest Baja California. Now believed to be extirpated from most of southern California.

OCCURRENCE ON SITE: Several individuals observed on site during 2003-2007 trapping studies by Cadre Environmental along the western boundary of the site.

OCCURRENCE OFF-SITE: Recorded by Cadre (2007) to be using the grassland vegetation just west of the site.

OPTIMAL SURVEY PERIOD: Following relatively warm rains in late winter, spring, and fall (Jennings and Hayes, 1994).

Belding's Orange-throated Whiptail*Aspidoscelis hyperythrus beldingi*

STATUS: California Species of Special Concern, Group 2.

HABITAT: Open sandy areas associated with floodplains, as well as rocky areas in nearby brush and woodland.

DISTRIBUTION: North of Baja California found in western San Diego County, Orange County, western Riverside County, and extreme southwestern San Bernardino County.

OCCURRENCE ON SITE: Several individuals were observed during focused wildlife surveys in 2006 and 2007 in mixed chaparral along exposed rocky road cuts on the upper east-facing slope of Monserate Mountain. Several individuals observed incidentally by Cadre Environmental during their pitfall trapping in 2003-2007.

OCCURRENCE OFF-SITE: Observed by Cadre (2007) near Horse Ranch Creek and the San Luis Rey River.

OPTIMAL SURVEY PERIOD: March to August.

Coastal Western Whiptail*Aspidoscelis tigris stejnegeri*

STATUS: California Species of Special Concern, Group 2.

HABITAT: Semiarid rocky canyon slopes, gravelly washes, and sandy flats, as well as dirt trails, in coastal sage scrub, chaparral, open woodland, and desert.

DISTRIBUTION: Orange and San Bernardino counties south into Baja California, from sea level to approximately 2,000 meters.

OCCURRENCE ON SITE: This species was observed on site during focused wildlife studies (Cadre Environmental, 2007).

OCCURRENCE OFF-SITE: Not detected off-site.

OPTIMAL SURVEY PERIOD: March to August.

Northern Red Rattlesnake*Crotalus ruber ruber*

STATUS: California Species of Special Concern, Group 2.

HABITAT: Desert scrub, coastal sage scrub, chaparral, and woodland, often in association with rock outcrops. Occasionally occurs in grasslands and perimeter of cultivated fields.

DISTRIBUTION: Coastal San Diego County to eastern slope of mountains and north through western Riverside County into southernmost San Bernardino County, from sea level to approximately 1,200 meters.

OCCURRENCE ON SITE: This species was observed on site during focused wildlife studies in 2007.

OCCURRENCE OFF-SITE: Not detected off-site.

OPTIMAL SURVEY PERIOD: March to June.

Coronado Western Skink*Eumeces skiltonianus interparietalis*

STATUS: California Species of Special Concern, Group 2.

HABITAT: Grassland, sage scrub, chaparral, and mixed woodland, associated with streams, rocks, logs, and leaf litter, which provide cover and feeding opportunities.

DISTRIBUTION: This subspecies is not recognized by Stebbins (2004), but is incorporated in with nominate *E. s. skiltonianus*. The nominate subspecies is found west of the Rocky Mountains; from southern British Columbia to northern Baja California. *E. s. interparietalis* is restricted to Riverside and San Diego counties and northwest Baja California.

OCCURRENCE ON SITE: The species was observed on site during focused wildlife studies (Cadre Environmental, 2007).

OCCURRENCE OFF-SITE: Not detected off-site.

OPTIMAL SURVEY PERIOD: February to July.

San Diego Coast Horned Lizard*Phrynosoma coronatum blainvillei*

STATUS: California Species of Special Concern, Group 2.

HABITAT: Generally occurs in sage scrub and chaparral, but can also be found in coniferous forest and broadleaf woodland. It is usually found in sandy areas, especially where harvester ants (*Pogonomyrmex* spp.) are found.

DISTRIBUTION: Southern Santa Barbara and Kern Counties southward through southwest San Bernardino and western Riverside Counties, into Baja California, Mexico, at locations approximately between 10 and 2130 meters

OCCURRENCE ON SITE: Several individuals were observed on site during pitfall trapping studies in 2004 (Cadre Environmental 2007).

OCCURRENCE OFF-SITE: Not detected off-site.

OPTIMAL SURVEY PERIOD: March to June.

San Diego Ringneck Snake

Diadophis punctatus similis

STATUS: California Species of Concern, Group 2.

HABITAT: Moist environments within chaparral and grassland, as well as riparian woodland, often around and under rocks, rotting logs, bark, and boards.

DISTRIBUTION: Orange County to northern Baja California, to approximately 2000 m elevation

OCCURRENCE ON SITE: Observed on site during focused wildlife studies (Cadre Environmental, 2007).

OCCURRENCE OFF-SITE: Not detected off-site.

OPTIMAL SURVEY PERIOD: April to June.

Two-striped Garter Snake

Thamnophis hammondi

STATUS: California Species of Special Concern, Group 1.

HABITAT: Perennial and intermittent streams having rocky beds and bordered by willow thickets or other dense vegetation, including grassland, sage scrub and chaparral. They also inhabit shallow rivers and stock-ponds bordered by thick riparian vegetation.

DISTRIBUTION: Coastal slope from Monterey County to northern Baja California from near sea level to 4,500 ft (1,370 m) elevation.

OCCURRENCE ON SITE: This species was observed on site during focused wildlife studies in 2006 and 2007 (Cadre Environmental, 2007).

OCCURRENCE OFF-SITE: Detected off-site near the San Luis Rey River by Cadre (2007).

OPTIMAL SURVEY PERIOD: March to October.

Green Heron

Butorides virescens

STATUS: Group 2.

HABITAT: Nests in valley foothill and desert riparian habitats and feeds in fresh emergent wetland, lacustrine, and slow-moving riverine habitats.

DISTRIBUTION: Uncommon resident throughout most of California.

OCCURRENCE ON SITE: Not observed on site.

OCCURRENCE OFF-SITE: Observed near off-site improvement areas around Horse Ranch Creek and the San Luis Rey River in 2007 during focused wildlife surveys.

OPTIMAL SURVEY PERIOD: Year-round.

Turkey Vulture

Cathartes aura

STATUS: Group 1.

HABITAT: Extensive open areas. Cliffs, rock outcrops, ledges, cavities and logs used for nesting.

DISTRIBUTION: Common during the breeding season throughout most of California.

OCCURRENCE ON SITE: Observed soaring over the site.

OCCURRENCE OFF-SITE: Observed soaring over off-site improvement areas.

OPTIMAL SURVEY PERIOD: Spring, summer, and fall.

Red-shouldered Hawk*Buteo lineatus*

STATUS: Group 1.

HABITAT: Forages along edges of wet meadows, swamps, and emergent wetlands. Nests in dense riparian habitats.

DISTRIBUTION: Locally uncommon to common resident along coast and fairly common in woodlands west of southern deserts in California.

OCCURRENCE ON SITE: Not observed on site.

OCCURRENCE OFF-SITE: Observed near off-site improvement areas around Horse Ranch Creek and the San Luis Rey River in 2007 during focused wildlife surveys.

OPTIMAL SURVEY PERIOD: Year-round.

White-tailed Kite*Elanus leucurus*

STATUS: Group 1.

HABITAT: Inhabits herbaceous and open stages of most habitats, mostly in cismontane California. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands.

DISTRIBUTION: Common to uncommon resident in coastal and valley lowlands, rarely found away from agricultural areas.

OCCURRENCE ON SITE: Not observed on site.

OCCURRENCE OFF-SITE: Observed near off-site improvement areas around Horse Ranch Creek and the San Luis Rey River in 2007 during focused wildlife surveys.

OPTIMAL SURVEY PERIOD: Year-round.

Cooper's Hawk*Accipiter cooperii*

STATUS: California Species of Special Concern, Group 1.

HABITAT: Nests primarily in fairly dense oak and riparian woodlands.

DISTRIBUTION: Throughout most of U.S. In southern California it is a fairly common winter visitor and uncommon summer resident west of the deserts.

OCCURRENCE ON SITE: Not detected on site.

OCCURRENCE OFF-SITE: Observed in the vicinity of several off-site improvement areas in 2007 associated with the willow riparian forest vegetation. No nesting was observed.

OPTIMAL SURVEY PERIOD: Year-round, but March to August for breeding.

Barn Owl*Tyto alba*

STATUS: Group 2.

HABITAT: Open habitats including grassland, chaparral, riparian, and other wetlands.

DISTRIBUTION: Common resident throughout California outside of dense forests and open desert habitats.

OCCURRENCE ON SITE: Observed incidentally on site during focused wildlife surveys from 2004-2007.

OCCURRENCE OFF-SITE: Observed in the vicinity of off-site improvement areas in 2007 associated with the willow riparian forest vegetation.

OPTIMAL SURVEY PERIOD: Year-round.

Northern Harrier*Circus cyaneus*STATUS: California Species of Special Concern 2nd Priority, Group 1.

HABITAT: Grasslands, agricultural fields, fresh- and brackish-water marshes.

DISTRIBUTION: Throughout most of North America, including all of California below the mountains; however, breeding localities in Southern California are sparse.

OCCURRENCE ON SITE: One individual observed foraging over sage scrub and chaparral on ridges in the northern portion of the site in 2006.

OCCURRENCE OFF-SITE: Not detected off-site.

OPTIMAL SURVEY PERIOD: Year-round, but May to August for breeding.

Southern California Rufous-crowned Sparrow

Aimophila ruficeps canescens

STATUS: California Species of Special Concern, Group 1.

HABITAT: Most foothill slopes and ridges with low-growing shrub cover, typically coastal sage scrub and non-arborescent types of chaparral. Inhabits rocky slopes, often intermixed with grassy areas.

DISTRIBUTION: Occurs west of the deserts from Ventura County south into Baja California.

OCCURRENCE ON SITE: A common resident over most of the site. Several individuals observed incidentally during focused wildlife surveys from 2004-2008.

OCCURRENCE OFF-SITE: Not detected off-site.

OPTIMAL SURVEY PERIOD: March to May.

Yellow Warbler

Dendroica petechia

STATUS: California Species of Special Concern 2nd Priority (breeding populations only), Group 2.

HABITAT: For breeding, usually riparian woodlands, but occasionally in montane chaparral and coniferous forests with dense ceanothus and manzanita understory.

DISTRIBUTION: Throughout most of North America. In California, formerly bred nearly throughout in appropriate habitat; now restricted mostly to northern California and locally in southern California in Coast Ranges.

OCCURRENCE ON SITE: Not observed on site.

OCCURRENCE OFF-SITE: Observed near off-site improvement areas around Horse Ranch Creek and the San Luis Rey River in 2007 and 2008 during focused wildlife surveys.

OPTIMAL SURVEY PERIOD: For breeding, May to August.

Yellow-breasted Chat

Icteria virens

STATUS: California Species of Special Concern 3rd Priority, Group 1.

HABITAT: For breeding, riparian scrub and woodland with dense cover; occasionally in non-riparian dense scrub.

DISTRIBUTION: Throughout much of North America in summer. In California, breeds nearly throughout in appropriate habitat.

OCCURRENCE ON SITE: Not observed on site.

OCCURRENCE OFF-SITE: Observed near off-site improvement areas around Horse Ranch Creek and the San Luis Rey River in 2007 and 2008.

OPTIMAL SURVEY PERIOD: For breeding, May to August.

White-faced Ibis

Plegadis chihi

STATUS: California Species of Special Concern, Group 1.

HABITAT: Migrant and wintering white-faced ibis may be found foraging in shallow lacustrine waters, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries.

DISTRIBUTION: An uncommon summer resident in sections of southern California, a rare visitor in the Central Valley, and is more widespread in migration. Formerly more common, especially in the San Joaquin Valley, this species no longer breeds regularly anywhere in California.

OCCURRENCE ON SITE: Not observed on site.

OCCURRENCE OFF-SITE: Observed near off-site improvement areas around Horse Ranch Creek in 2007.

OPTIMAL SURVEY PERIOD: Winter and spring months.

Western Bluebird*Sialia mexicana*

STATUS: Group 2.

HABITAT: Breeds in open oak woodlands, riparian deciduous trees, conifers with herbaceous understory. In winter uses open habitats

DISTRIBUTION: Fairly common to common year-round throughout much of California.

OCCURRENCE ON SITE: Observed on site in 2007.

OCCURRENCE OFF-SITE: Observed near off-site improvement areas around Horse Ranch Creek in 2007.

OPTIMAL SURVEY PERIOD: Winter and spring months.

Northwestern San Diego Pocket Mouse*Chaetodipus fallax fallax*

STATUS: California Species of Special Concern, Group 2.

HABITAT: Foothill slopes and ridges with vegetated with coastal sage scrub, sagebrush, desert scrub, chaparral, and annual grassland.

DISTRIBUTION: Southwestern San Bernardino, western Riverside, and western San Diego counties.

OCCURRENCE ON SITE: Observed incidentally by Cadre along western boundary (2007) during pitfall trapping studies.

OCCURRENCE OFF-SITE: Not observed off-site.

OPTIMAL SURVEY PERIOD: Year round at night.

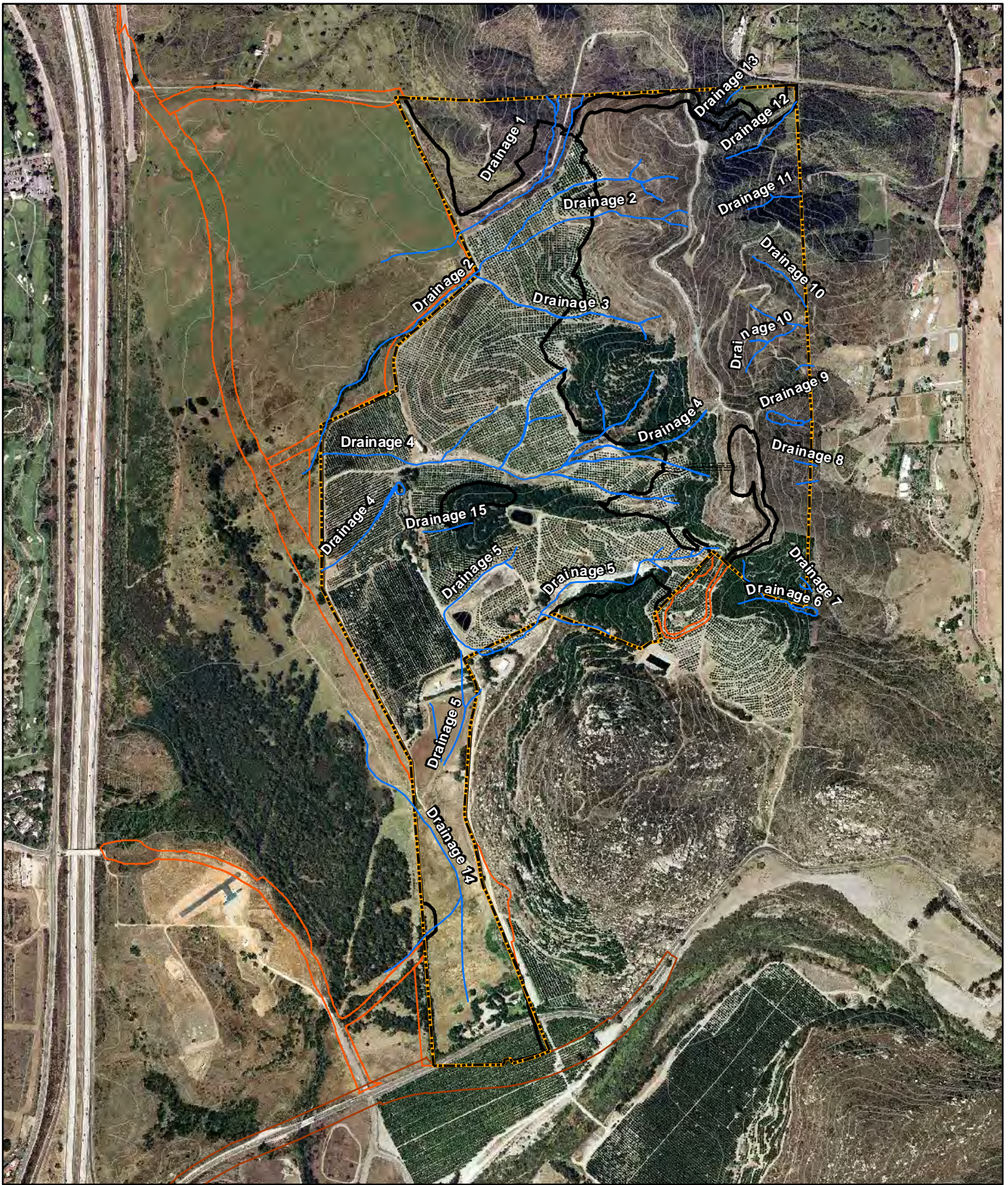
1.4.7 JURISDICTIONAL WATERS

Disturbance to wetlands is regulated by several agencies, all of which have specific definitions. On site and off-site wetland delineation reports for the Meadowood project have been prepared by Glenn Lukos and Associates (GLA) for impacts to the ACOE and CDFG jurisdictional areas. These reports are included in Appendix E and delineated jurisdictional areas are shown on Exhibit 4A. Where appropriate, jurisdictional impacts have been incorporated into this report. In some cases these numbers may vary from wetland vegetation acreages used for CEQA documentation reported in this document.

A total of 45,998 square feet (1.06 acres) of jurisdictional ACOE wetlands and waters are located on site. Of this total, 6,098 square feet (0.14 acres) consist of ACOE wetlands and 39,900 square feet (0.92 acre) of ACOE waters. In addition to the 1.06 acre of ACOE wetlands and waters are 0.09 acre of ACOE isolated waters, none of which consist of wetlands. These isolated waters are comprised of portions of Drainages 5, 6, 8, and 9 as described in the GLA delineation report. Most of the on site drainages are ephemeral streams and do not support any hydrophytic vegetation and are therefore considered ACOE waters. Drainage 4, however, is an east to west flowing drainage located in the central portion of the project area and consists of approximately 9,200 linear feet and supports the 0.14 acres of ACOE wetlands as mentioned above. To remain consistent with the delineation report for the Meadowood site, this central drainage will be referred to as Drainage 4. The drainages and numbering scheme used by GLA are shown on Exhibit 9.

There are 68,875 square feet (1.58 acres) of area on site under the jurisdiction of the CDFG, of which 32,664 square feet (0.75 acres) consist of vegetated riparian habitat.

There are no RPO wetlands on site. Although Drainage 4 supports several riparian vegetation species and hydric soils, this drainage is not considered an RPO wetland due to its isolation and dependence on irrigation from the agriculture located uphill from the drainage under Section 86.602 (q)(2)(aa) Section 86.602(q)(2)(aa) of the RPO states that lands solely due to man-made structures and have negligible biologic function and value, are small and geographically isolated from other wetland systems, are not vernal pools, and that do not support a substantial or locally important population of wetland dependent species are not considered to be "wetlands". The wetland attributes in Drainage 4 are the result of legal agricultural irrigation runoff, the biological functions and values are



Eric Kline, Natural Resource Consultants, 18 May 2009, Proj_GIS\pardee\meadowood\workspaces\2009\bio_resources\jurisdictional_map.mxd

- Boundary
- On Site Impact Area
- Temporary Impact Area
- Off-site Improvements
- SR76 Realignment
- Delineated Drainages (GLA)

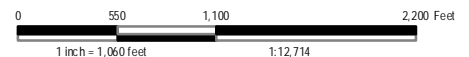


EXHIBIT 9: DELINEATED ON SITE DRAINAGES

MEADOWOOD | COUNTY OF SAN DIEGO, CALIFORNIA



negligible, and the area does not support any substantial or locally important wetland dependent species. There are other drainage features regulated by the ACOE and CDFG on the site, however, these ephemeral drainage features do not support hydrophytes, undrained hydric soils, or a water table that is usually at or near the ground surface. As such, on site drainages do not meet the County's wetland definition in the RPO.

The on site drainages flow generally to the southwest towards Horse Ranch Creek. Many of the drainages pass through the citrus and avocado groves. These drainages have little wetland function such as wildlife abundance and habitat. Only Drainage 4 contains some sparse mule fat and willows. Western spadefoot toads were observed in this area by Cadre Environmental during their surveys. These drainages also have little wetland value given the sparseness of the vegetation, lack of diversity and cover, and the isolated location.

1.4.8 HABITAT CONNECTIVITY AND WILDLIFE MOVEMENT CORRIDORS

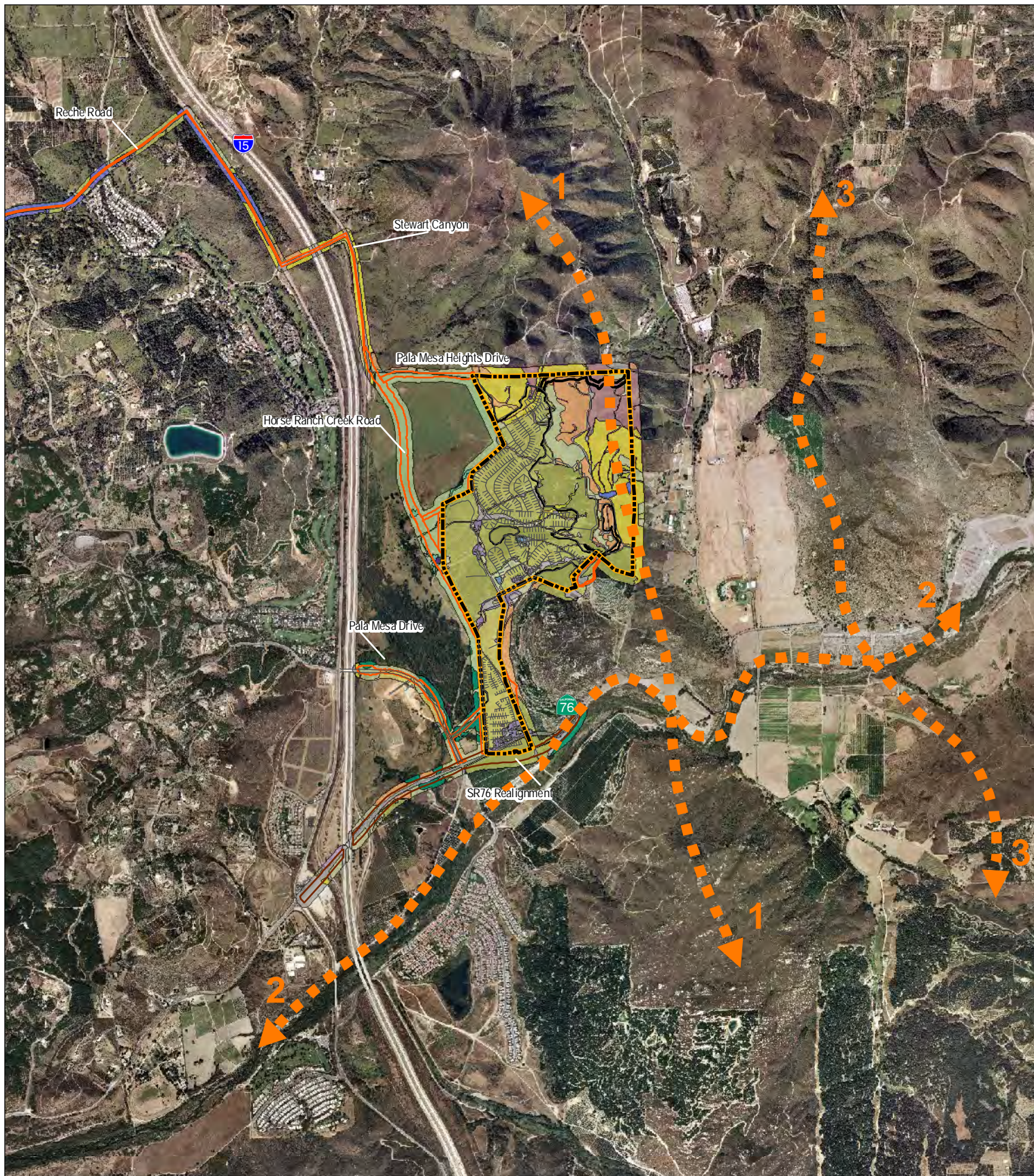
NRC conducted a wildlife movement path evaluation based existing topography, observed habitat and documented habitat preferences, wildlife sightings and scat/tracks, and existing obstructions to wildlife movement in the site vicinity (roads, and development). Three wildlife movement corridors were identified on or near the site and are illustrated on Exhibit 10.

Corridor 1: This north-south corridor contains upland coastal sage scrub occurring along the southern ridgeline of Monserate Mountain along the eastern and northern portions of the site. The corridor is approximately 600 to 700 feet wide within the site and runs the length of the eastern boundary. The corridor widens to the north connecting coastal sage scrub covered hills to the north with scrub covered hills to the south, SR-76, and further south to the San Luis Rey River. Coyotes and mule deer scat were observed along this ridgeline and its eastern slopes. This corridor is of moderate value to local and regional wildlife movement. Corridor 1 is an important resource for movement of species, providing access to the northern and southern areas that remain as habitable space for wildlife and vegetation communities. However, the corridor is constrained by steep slopes, narrow ridgelines, existing agriculture and residential areas. In addition, the proximity of the SR-76 creates a permanent southern terminus for regional wildlife movement limiting connectivity to regional open space areas.

Corridor 2: This corridor follows the San Luis Rey River drainage and associated riparian scrub immediately south of the site. The drainage connects many different habitats along its east-west course. Deer and coyote scat and tracks have been observed along the river edges and dirt roads through the orchards adjacent to the river. The corridor is approximately 200 to 400 feet wide and runs the length of the San Luis Rey River.

Corridor 3: This north-south corridor follows the slopes and ridgeline to the east of the Meadowood site on the eastern side of Rice Canyon. The disturbed coastal sage scrub and chaparral slopes and ridges connect the mountains and smaller slot canyons to the north with Couser Canyon and the San Luis Rey River to the south. The corridor varies greatly from 500 to 2,500 feet wide and runs the length of the local hills and canyons. Rice Canyon itself is developed with agriculture and residences that have fenced off most of the access through the bottom of the canyon.

The riparian forest east of I-15 from Stewart Canyon to the north through Horse Ranch Creek to the San Luis Rey River and Keys Canyon to the south may be considered a "stepping stone" or "habitat island" for riparian and migratory birds. This area was not described as a corridor based on the fact that large or mid-size mammal use of this area was not observed and, based on existing obstructions (fences and roads) is not expected. It is noted that SR-76 already acts as a barrier to wildlife movement southward towards the San Luis Rey River.



Eric Kline. Natural Resource Consultants. 18 May 2009. Proj_GIS\pardeim\meadowood\workspaces\2009\bio_resources\wildlife_corridors.mxd

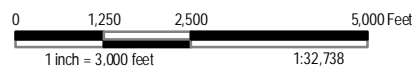
- Site Boundary
- On Site Impact Area
- Off-site Improvements
- Proposed SR76 Realignment
- ▲— Wildlife Corridors

- (AG) Agriculture - 18000/18100
- (NNG) Non-native Grassland - 42200
- (CSS) Coastal Sage Scrub - 32500
- (DCSS) Disturbed Coastal Sage Scrub - 32500
- (CHP) Southern Mixed Chaparral - 37120
- (NNT) Non-native Trees - 11000
- (PAS) Pasture - 18310

- (OW) Coast Live Oak Woodland - 71160
- (WMS) Willow and Mulefat Scrub - 63300
- (SAWRF) Southern Arroyo Willow Riparian Forest - 61320
- (SWS) Southern Willow Scrub - 63320
- (FWM) Freshwater Marsh - 52400
- (OWP) Open Water Ponds - 13100
- (DIST) Disturbed - 11000/12000/13000



EXHIBIT 10: WILDLIFE MOVEMENT CORRIDORS MEADOWOOD | SAN DIEGO COUNTY, CALIFORNIA



1.5 APPLICABLE REGULATIONS

1.5.1 COUNTY OF SAN DIEGO GUIDELINES FOR DETERMINING SIGNIFICANCE

The County of San Diego Guidelines for Determining Significance for Biological Resources (County of San Diego 2008) were consulted during the evaluation of impacts to biological resources. These guidelines address the CEQA Guidelines, Appendix G, IV. Biological Resources and IX Land Use Planning as discussed briefly in Section 1.5.5 below. The County's guidelines were used to establish significant impacts of the proposed project on sensitive biological resources and propose appropriate mitigation and minimization measures to offset these impacts.

1.5.2 MULTIPLE SPECIES CONSERVATION PROGRAM

The MSCP is a regional conservation plan designed to protect the San Diego County's sensitive species and habitats and to provide the framework for a connected preserve system. It is intended that the unincorporated portions of the County be included in one of three subarea plans. The subarea plan covering the southwestern portion of the County was adopted in 1997. The northern portion of the County is to be covered by the North County MSCP while the eastern portion of the County will be covered in the East County MSCP. The Meadowood project falls under the North County MSCP, which has yet to be adopted. It is anticipated that the project will be approved prior to the proposed MSCP and the project is a "hard line" on the most recent MSCP maps. As such the proposed MSCP map shows this site as "Take Authorized" and as "Preserve". The grading footprint for the project conforms to the proposed MSCP map. Meadowood will dedicate a significant amount of upland habitat (115.6 acres) that will contribute to the assembly of the North County MSCP preserve. Additional resources will be contributed in the form of mitigation for wetland impacts.

1.5.3 RESOURCE PROTECTION ORDINANCE

The RPO limits impacts to several sensitive natural resources found throughout San Diego County. These sensitive resources include wetlands, floodplains, steep slopes, sensitive habitat lands, and prehistoric and historic sites. A Resource Protection Study (Sec.86.603) is required for discretionary projects that may affect these sensitive natural resources. This report will serve as the biological resources section of the required Resource Protection Study.

Several sections of the RPO are pertinent to the Meadowood project. As stated in Section 1.4.7, there are no wetlands on site that meet the RPO standard as "wetlands." Many of the wetlands on or adjacent to the site are fed by agriculture runoff. These wetlands are isolated and not considered an RPO wetland under Section 86.602 (q)(2)(aa). Some road construction associated with off-site improvements will impact RPO wetlands on adjacent properties. However, the Specific Plans associated with these properties have been exempted from the provisions of RPO, thus impacts are allowed.

Under the RPO, a wetland buffer is required where development is adjacent to wetland areas (Sec. 86.604(b). In addition, encroachment into RPO steep slopes must be minimized in accordance with Section 86.604 (e).

Under the RPO Sec. 86.602(n) habitat such as occupied coastal sage scrub is a "sensitive habitat land" as it is substantially depleted in the region and habitat for the federally threatened California gnatcatcher. Habitat associated with a functioning wildlife corridor is also defined as a "sensitive habitat land" under the RPO Sec. 86.602(n). Impacts to sensitive habitat lands will be minimized and mitigated in accordance with the County guidelines and will provide equal or greater value to the affected species (Sec. 86.604 (f)).

1.5.4 HABITAT LOSS PERMIT ORDINANCE

The San Diego County Habitat Loss Permit (HLP) Ordinance applies to projects that may impact, directly or indirectly, coastal sage scrub habitats regardless of occupation by California gnatcatchers. "[T]he County is authorized to issue 'take permits' for the California gnatcatcher (in the form of Habitat Loss Permits) in lieu of Section 7 or 10(a) Permits typically required from the US Fish and Wildlife Service" (County of San Diego Guidelines for Determining Significance, Biological Resources, 2008). The HLP applies to lands that are not covered by an adopted MSCP plan. The Meadowood project is currently undergoing a Section 7 Permit consultation with the USFWS and will file for take of California gnatcatcher under this permit. An HLP will not be required if the Section 7 Permit is issued by the USFWS or the proposed North County MSCP is approved prior to the project.

1.5.5 CALIFORNIA ENVIRONMENTAL QUALITY ACT

The primary context of this document is avoidance or minimization of impacts under CEQA. Appendix G of the CEQA Guidelines (as amended through July 2007) is used by public agencies in determining whether a project may have a significant impact on biological resources. Under Appendix G, a project may have a significant impact on biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS).
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in the City or regional plans, policies, or regulations by the CDFG or USFWS.
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance (*e.g.*, oak trees or California walnut woodlands).
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

In addition, Section 15065(a) of the CEQA Guidelines establishes that a significant impact may occur if "[t]he project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, [or] reduce the number or restrict the range of an endangered, rare or threatened species."

1.5.6 CALIFORNIA ENDANGERED SPECIES ACT

Sections 2081(b) and (c) of the California Endangered Species Act allow the California Department of Fish and Game (CDFG) to issue an incidental take permit for a State listed threatened and endangered species only if specific criteria are met. These criteria are as follows:

1. The authorized take is incidental to an otherwise lawful activity;

2. The impacts of the authorized take are minimized and fully mitigated;
3. The measures required to minimize and fully mitigate the impacts of the authorized take:
 - a. are roughly proportional in extent to the impact of the taking on the species,
 - b. maintain the applicant's objectives to the greatest extent possible, and
 - c. are capable of successful implementation;
4. Adequate funding is provided to implement the required minimization and mitigation measures and to monitor compliance with and the effectiveness of the measures; and
5. Issuance of the permit will not jeopardize the continued existence of a State-listed species.

No species listed by the CDFG occur on the Meadowood site. State listed species that occur near proposed off-site improvements are discussed in Section 3 of this report.

1.5.7 FEDERAL ENDANGERED SPECIES ACT

Take of a federally listed threatened or endangered species is prohibited under federal law without a special permit. Section 10(a)(1)(B) of the Endangered Species Act (ESA) allows for take of a threatened or endangered species incidental to development activities once a Habitat Conservation Plan (HCP) has been prepared to the satisfaction of the USFWS and a Section 10(a) incidental take permit has been issued to the applicant. Section 7 of the ESA allows for take of a threatened or endangered species incidental to legal development activities where there is a "nexus" to another required federal action. In this case, such a nexus exists because the project also requires a 404 permit to disturb wetlands under the jurisdiction of the Army Corps of Engineers (ACOE). A 404 application has been filed with ACOE and a Section 7 Consultation with USFWS has been requested for the Meadowood project and associated off-site improvements. The status of all federally-listed species that could potentially occur on the site is described in Section 3 of this report.

1.5.8 USFWS CRITICAL HABITAT

"Critical Habitat" is a term within the ESA designed to guide actions by federal agencies (as opposed to State, local, or other agency actions) and is defined as "an area occupied by a species listed as threatened or endangered within which are found physical or geographical features essential to the conservation of the species, or an area not currently occupied by the species which is itself essential to the conservation of the species." Portions of the Meadowood site fall within the current Critical Habitat boundaries for the California gnatcatcher (USFWS 2000, USFWS 2003a, and USFWS 2007). Least Bell's vireo Critical Habitat is designated on a small southern portion of the site, but no suitable habitat for the vireo is present (USFWS 1994). The site also falls within "Excluded Essential Habitat" for the arroyo toad (USFWS 2004a, 2005a, 2005b), a designation that allows for reinstatement of Critical Habitat if Habitat Conservation Plans fail to preserve habitat for the species. The realignment of SR-76 falls within the designated boundaries of Critical Habitat for least Bell's vireo and designated Critical Habitat for the southwestern willow flycatcher (USFWS 2005c) south of the site along the San Luis Rey River.

1.5.9 NATURAL COMMUNITY CONSERVATION PLANNING ACT

The Natural Community Conservation Planning (NCCP) Act is implemented by the CDFG to conserve natural communities at the ecosystem scale while allowing for appropriate economic growth. NCCP plans such as the "Multiple Species Conservation Program County of San Diego Subarea Plan," provide comprehensive management and conservation of multiple species within the region. Currently the County of San Diego has been authorized to

allow limited loss of coastal sage scrub vegetation under the 4(d) Rule associated with NCCP (see Section 1.5.4). The proposed North County MSCP will also qualify as an NCCP once it has been approved and adopted.

1.5.10 MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act of 1918 (MBTA) is a federal law governing the taking, killing, possession, transportation, and importation of various birds, their eggs, parts and nests. The take of any number of a bird species listed as protected on any one of four treaty lists is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over utilization. The MBTA also prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, certain bird species, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR 21.11).

2.0 PROJECT EFFECTS

The anticipated project effects associated with implementation of the Meadowood project and associated off-site improvements are summarized below. For the purposes of this assessment the project impacts are classified as “on site” describing anticipated impacts within the project boundaries and “off-site” for impacts occurring outside the project boundaries.

2.1 ON SITE IMPACTS

Development of the proposed project would have adverse impacts on various biological resources present on the site.

Pardee Homes proposes to develop approximately 217.8 acres of the Meadowood site for residential and associated uses, including parks, recreational trails, fire access road, and an elementary school. This area includes a 100-foot Limited Building Zone Easement, brush management zone, and water tanks. The project will include a wastewater treatment plant and wet weather ponds in the southern portion of the site. All impacts for the project have been classified as permanent, temporary, or impact neutral as defined below.

- A permanent impact is defined as an impact that will remove vegetation and will not be restored or revegetated. Grading, brush management, and installation of structures are examples of permanent impacts.
- A temporary impact is defined as an impact that will remove or disturb vegetation and will be restored or revegetated with the same species or vegetation communities as the resources being impacted and no further mitigation is required. Additionally, the restored/revegetated area will not be used towards mitigation credit. On site temporary impacts include trenching and construction of a water main between the water tanks and residential area in the eastern portion of the site as shown on Exhibit 4A.
- Impact neutral areas, in accordance with County Guidelines of Significance, are not considered removal areas, but cannot be credited toward mitigation requirements. The impact neutral area on the Meadowood site is confined by the water tanks and access road to the east and agricultural open space to the west separating it from the majority of the preserved open space as shown on Exhibit 4A.

Vegetation communities affected by grading on the Meadowood site include coastal sage scrub, disturbed coastal sage scrub, southern mixed chaparral, coast live oak woodland, mixed willow/mule fat scrub along with annual grassland, agriculture, pastureland, open water, non-native trees and disturbed/developed areas (Table V). The anticipated on site impacts to vegetation communities are shown in Exhibits 4 and 4A and listed in Table V.

TABLE V. ON SITE IMPACTS

Vegetation Community	Existing On Site	On site Permanent Impacts	Preserved On Site	Impact Neutral*	On Site Temporary Impacts*
Agriculture	209.9	162.5	47.4	0.6	0.3
Non-native grassland	31.9	9.9	22.0	2.0	<0.1
Coastal sage scrub/Disturbed coastal sage scrub	87.1	12.6	74.5	2.8	0.2
Southern mixed chaparral	19.6	2.2	17.5	0.0	0.2
Non-native trees	8.3	8.1	0.2	0.0	0.0
Pastureland	1.5	1.5	0.0	0.0	0.0
Coast live oak woodland	1.7	<0.1	1.7	0.0	0.0
Willow/mule fat scrub	<0.1	<0.1	0.0	0.0	0.0
Open water	0.7	0.7	0.0	0.0	0.0
Disturbed/developed areas	28.7	20.3	8.4	0.5	<0.1
TOTAL ACRES	389.5	217.8	171.7	5.9	0.7

*The Impact Neutral and On Site Temporary Impacts columns have been included within the Preserved On Site column. The Preserved On Site column includes lands preserved for mitigation as well as revegetated areas and areas not included within the open space.

As described in Section 3.0, the on site development area would result in direct and indirect impacts to potentially occupied habitat of two federal listed wildlife species: California gnatcatcher (threatened) and arroyo toad (endangered). Grading on the site would result in the removal of approximately 12.6 acres of occupied habitat for California gnatcatcher.

In addition, this report describes impacts to suitable and occupied habitat for 14 other special status wildlife species that would be adversely affected by project implementation. On site impacts also include permanent impacts to 0.83 acres of ACOE jurisdiction and 0.93 acres of CDFG jurisdiction (GLA 2007).

2.2 OFF-SITE IMPACTS

Potential off-site improvements include improvements to Pala Mesa Drive, Pankey Road, Pala Mesa Heights Drive, Horse Ranch Creek Road, a residential connection road, a water tank access road, and water transmission lines. Widening and realignment of portions of SR-76 have already been permitted separately by different applicants. This section provides a summary of the off-site impacts.

Development of all permanent off-site improvement areas would remove approximately 6.2 acres of natural vegetation communities, 1.0 acre of non-native trees, 34.1 acres of non-native grassland and pasture, 3.8 acres of agriculture, and 19.5 acres of disturbed land, including existing paved and dirt roads and shoulders. Temporary off-site impacts include 2.3 acres of natural vegetation communities, 0.2 acre of non-native trees, 5.0 acres of non-native grassland and pasture, 1.4 acres of agriculture, and 0.3 acre of disturbed land. Staging of equipment and equipment operating space are examples of temporary off-site impacts. Potential impacts associated with off-site improvements are listed in Table VI and VII and shown on Exhibits 4, 4A, 4B, and 4C. These tables also identify which improvements may affect federally listed species.

Off-site improvement areas (Horse Ranch Creek Road, Pala Mesa Heights Drive, Pankey Road and water lines) would remove 0.9 acres of occupied California gnatcatcher habitat. Another 1.0 acre of unoccupied gnatcatcher habitat would be removed in off-site improvement areas for Pala Mesa Drive, water lines, a portion of Horse Ranch Creek Road, and grading along the site edge. It is anticipated that 3.7 acres of suitable least Bell's vireo habitat (southern willow scrub and southern arroyo willow riparian forest) may be lost due to the construction/widening of Horse Ranch Creek Road, Pala Mesa Drive, and grading along the site edge just off site. Off-site improvements for

TABLE VI
ACREAGE OF PERMANENT OFF-SITE VEGETATION COMMUNITY IMPACTS

Off-site Impact	CSS	DCSS	CHP	OW	SWS	SAWRF	FWM	NNG	NNT	S(1)	PAS	AG	DIST	S(2)	Total S{ 1+2}	Listed Species*
Pala Mesa Drive (Horse Ranch Creek Road to I-15)**	0.01	0.00	0.00	0.00	0.00	2.18	0.00	3.48	0.14	5.81	0.84	1.92	0.85	3.61	9.42	CAGN, LBV
Pankey Road (N. Passerelle boundary to Stewart Cvn. Rd.	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.76	0.00	0.00	3.37	3.37	4.13	CAGN
Horse Ranch Creek Road (N. Passerelle bdry to W. Meadowood site bdry)	0.00	0.00	0.00	0.00	0.68	0.00	0.32	0.00	0.15	1.15	16.69	0.01	0.06	16.76	17.91	LBV
Horse Ranch Creek Road East of PA1	0.00	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.72	0.00	0.21	0.99	1.20	1.92	CAGN
Residential Connection Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00	0.93	0.93	--
Water Tank Access Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.45	0.07	1.52	1.52	--
Grading Along Site Edge	0.00	0.01	0.00	0.00	0.27	0.59	0.00	0.36	0.63	1.86	4.46	0.00	0.26	4.72	6.58	CAGN, LBV
2 nd CWA Pipeline Preferred	0.31	0.01	0.00	0.20	0.00	0.00	0.00	0.64	0.05	1.21	2.82	0.21	13.43	16.46	17.67	CAGN
Pala Mesa Heights Drive	0.00	0.12	0.00	0.00	0.00	0.00	0.00	0.91	0.00	1.03	2.98	0.00	0.51	3.49	4.52	CAGN
Total	1.05	0.84	0.00	0.20	0.95	2.77	0.32	5.39	1.02	12.54	28.72	3.80	19.54	52.06	64.60	--

* The following table lists the off-site impacts associated with the Meadowood Project. Sensitive species listed in the table represent potential impacts to these species.

** These actions may be completed under separate permit applications; however, will be included under this permit in the event that they are not completed prior to construction of the Meadowood project.

Legend

S(1) – total acreage of CSS,DCSS, CHP,OW, SWS, FWM, NNG, NNT

S(2) – total acreage of PAS, AG, DIST

TABLE VI
ACREAGE OF PERMANENT OFF-SITE VEGETATION COMMUNITY IMPACTS

CSS – Coastal Sage Scrub, DCSS – Disturbed Coastal Sage Scrub, CHP – Southern Mixed Chaparral, OW – Oak Woodland, SWS - Southern Willow Scrub, SAWRF – Southern Arroyo Willow Riparian Forest, FWM - Freshwater Marsh, NNG – Non-native Grassland, NNT – Non-native Trees, PAS – Pasture, AG – Agriculture, DJST – Disturbed/Developed/Graded

CAGN – California Gnatcatcher, LBV – Least Bell’s Vireo



TABLE VII
ACREAGE OF TEMPORARY OFF-SITE VEGETATION COMMUNITY IMPACTS

Off-site Impact	CSS	DCSS	CHP	OW	SWS	SAWRF	FWM	NNG	NNT	S(1)	PAS	AG	DIST	S(2)	Total S{ 1+2}	Listed Species*
Pala Mesa Drive (Horse Ranch Creek Road to I-15)**	0.11	0.00	0.00	0.00	0.00	2.00	0.00	1.94	0.07	4.12	0.77	1.26	0.19	2.22	6.34	CAGN, LBV
Pankey Road (N. Passerelle boundary to Stewart Cvn. Rd.	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Horse Ranch Creek Road (N. Passerelle bdry to W. Meadowood site bdry)	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.02	0.62	0.00	0.03	0.65	0.67	CAGN, LBV
Horse Ranch Creek Road East of PAI	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Residential Connection Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.14	0.14	--
Water Tank Access Road	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Grading Along Site Edge	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.06	0.13	0.32	1.16	0.11	0.06	1.33	1.65	LBV
2 nd CWA Pipeline Preferred	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	--
Pala Mesa Heights Drive	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.13	0.00	0.16	0.15	0.00	0.03	0.15	0.31	CAGN
Total	0.11	0.03	0.00	0.00	0.02	2.13	0.00	2.13	0.20	4.62	2.84	1.37	0.28	4.49	9.11	--

* The following table lists the off-site impacts associated with the Meadowood Project. Sensitive species listed in the table represent potential impacts to these species.

** These actions may be completed under separate permit applications; however, will be included under this permit in the event that they are not completed prior to construction of the Meadowood project.

Legend

S(1) – total acreage of CSS,DCSS, CHP,OW, SWS, FWM, NNG, NNT

S(2) – total acreage of PAS, AG, DIST

CSS – Coastal Sage Scrub, DCSS – Disturbed Coastal Sage Scrub, CHP – Southern Mixed Chaparral, OW – Oak Woodland, SWS - Southern Willow Scrub, SAWRF – Southern Arroyo Willow Riparian Forest, FWM - Freshwater Marsh, NNG – Non-native Grassland, NNT – Non-native Trees, PAS – Pasture, AG – Agriculture, DIST – Disturbed/Developed/Graded

CAGN – California Gnatcatcher, LBV – Least Bell's Vireo

Horse Ranch Creek Road, Pala Mesa Drive, and grading along the site edge would remove 3.7 acres of suitable, but unoccupied, southwestern willow flycatcher habitat.

The off-site improvements associated with the Meadowood project would result in permanent impacts to 2.29 acres of ACOE and CDFG jurisdiction and 2.29 acres of RPO wetlands. The project would also result in temporary impacts to 2.04 acres of ACOE, CDFG, and RPO jurisdiction off-site (GLA 2008).

3.0 SPECIAL STATUS SPECIES

3.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

The following conditions were identified by the County of San Diego Report Format and Content Requirements for Biological Resources to determine the significance of the project on special status species. These conditions will be applied to project effects and where significant impacts are anticipated they will be labeled to identify specific conditions listed below (i.e. 3.1.A through 3.1.J).

- A. The project would impact one or more individuals of a species listed as federally or state endangered or threatened.
- B. The project would impact the regional long-term survival of a County Group A or B plant species, or a County Group I animal species, or a species listed as a state Species of Special Concern.
- C. The project would impact the regional long-term survival of a County Group C or D plant species or a County Group II animal species.
- D. The project would impact arroyo toad aestivation or breeding habitat.
- E. The project would impact golden eagle habitat.
- F. The project would result in a loss of functional foraging habitat for raptors.
- G. The project would increase the noise and/or nighttime lighting to a level above ambient proven to adversely affect sensitive species.
- H. The project would impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or an area that supports multiple wildlife species.
- I. The project would increase human access or predation or competition from domestic animals, pests or exotic species to levels that would adversely affect sensitive species.
- J. The project would impact nesting success of sensitive animals (as listed in the Guidelines for Determining Significance) through grading, clearing, fire fuel modification, and/or noise generating activities such as construction.

Sensitive Species Designations

A **federally endangered species** is a species of invertebrate, plant, or wildlife formally listed by the USFWS under the federal ESA as facing extinction throughout all or a significant portion of its geographic range. A **federally threatened species** is one formally listed by the USFWS as likely to become endangered within the foreseeable future throughout all or a significant portion of its range. "Take" of a federally endangered or threatened animal species or its habitat is generally prohibited by federal law without a special permit. "Take" of a federally endangered or threatened plant species on private property is generally not prohibited under the federal Endangered Species Act unless a federal action is involved. The term "take", under the federal ESA, means to "harass, harm, pursue, hunt,

shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct.” “Harm” is defined by the USFWS to encompass “an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering” (50 CFR § 17.3).

A **proposed threatened or endangered species** is one officially proposed by the USFWS for addition to the federal threatened or endangered species lists.

The State of California considers an **endangered species** one whose prospects of survival and reproduction are in immediate jeopardy; a **threatened species** is one present in such small numbers throughout its range that it is considered likely to become an endangered species in the near future in the absence of special protection or management; and a **rare species** is one present in such small numbers throughout its range that it may become endangered if its present environment worsens. The designation “rare species” applies only to California native plants. State threatened and endangered species include both plants and wildlife, but do not include invertebrates. State threatened and endangered animal species are legally protected against “take,” as defined in the California ESA (California Fish & Game Code Section 2050 *et seq.*). State threatened and endangered plant species are regulated largely under the Native Plant Preservation Act in conjunction with the California ESA.

Species of special concern is an informal designation used by the CDFG for some declining wildlife species that are not officially listed as endangered, threatened, or rare (Jennings and Hayes, 1994; Remsen 1978; CDFG and PRBO, 2004; Williams, 1986). This designation does not provide legal protection, but signifies that these species are recognized as vulnerable by CDFG.

Species that are **California fully protected** include those protected by special legislation for various reasons, such as the white-tailed kite (*Elanus leucurus*).

Species that are listed under County Groups A through D for plants and Groups 1 and 2 for animals have been designated by the County of San Diego based on their rarity and known threats. **Groups A and B** plants and **Group 1** animals are those that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met. **Groups C and D** plants and **Group 2** animals include those that are becoming less common, but are not yet so rare that extirpation or extinction is imminent without immediate action.

The CNPS is a statewide resource conservation organization that has developed an inventory of California's special status plant species (Tibor, 2001). This inventory is a summary of information on the distribution, rarity, and endangerment of California's vascular plants. This rare plant inventory consists of four lists. CNPS presumes that **List 1A** plant species are extinct because they have not been seen in the wild for many years. CNPS considers **List 1B** plants as rare, threatened, or endangered throughout their range. **List 2** plant species are considered rare, threatened, or endangered in California, but more common elsewhere. Plant species on lists 1A, 1B, and 2 typically meet CDFG criteria for endangered, threatened, or rare listing. Plant species for which CNPS requires additional information in order to properly evaluate their status are included on **List 3**. **List 4** plant species are those of limited distribution in California whose susceptibility to threat is considered low at this time.

The following sections indicate the habitats and plant and animal species present or potentially present on the site that have been afforded special recognition. Sources used to determine the potential occurrence of special status resources in the vicinity of the site include USFWS (1997a, 1997b), CDFG (1996, 1997, 1998a, 1998b), California Native Plant Society (Tibor, 2001), California Natural Diversity Data Base (CNDDB, 2007), California Wildlife Habitat Relationships Database System (CDFG, 1991), Remsen (1978), CDFG and PRBO (2004), Jennings and Hayes (1994), and Williams (1986). Special status species occurring or potential occurring on site are summarized in Tables III and IV.

3.2 ANALYSIS OF PROJECT EFFECTS

3.2.1 IMPACTS ON THREATENED OR ENDANGERED SPECIES

No special status plant species have been detected on the site; therefore, no direct or indirect impacts would be expected to special status, threatened, or endangered plant species.

The site is located in the vicinity of known occurrences of the arroyo toad, California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher. Potential direct and indirect impacts associated with on and off-site improvements are described in the following sections. In addition, this section describes potential project effects to Designated Critical Habitat for the California gnatcatcher, Designated Critical Habitat for the least Bell's vireo and Proposed Critical Habitat for the southwestern willow flycatcher.

3.2.1.1 Arroyo Toad

One arroyo toad has been located on the Meadowood site using low quality foraging and aestivation habitat south of the former alignment of the SR-76 prior to the current realignment construction. Road construction has created a barrier to arroyo toad movement from the San Luis Rey River to the low quality aestivation habitat in the southernmost portion of the site. The permanent barrier between the south side of SR-76 and the Meadowood site eliminates any potential use of the Meadowood site by arroyo toad.

Direct Impacts

Meadowood will not have any direct effects on arroyo toad..

No Critical Habitat for the arroyo toad will be impacted by the project.

Indirect Impacts

Construction activities in the vicinity of arroyo toads and their habitat may result in indirect impacts. Indirect impacts may include increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. These edge effects are potentially significant prior to mitigation (Guideline 3.1.A, G and I). All drainage from proposed roads and structures associated with the Meadowood project would flow into a storm drain system and detention basins. Any changes in the quantity or quality of run-off from the site that would increase sediment load in nearby occupied habitat areas could also result in indirect impacts. Debris and polluted water entering into the storm drain system or drainages would be considered a significant impact prior to mitigation (Guideline 3.1.A, D and G).

3.2.1.2 California Gnatcatcher

In 2007, one California gnatcatcher was observed on the site in the northern patch of coastal sage scrub and two other individuals were observed near the Pankey Road and water line off-site improvement areas. In addition, a single California gnatcatcher was located adjacent to the western edge of the project in 2004. Based on the quality and maturity of the coastal sage scrub on the site and the presence of a male California gnatcatcher in 2007 all coastal sage scrub on the site is, for the purposes of this assessment, assumed to be suitable and occupied California gnatcatcher habitat.

Direct Impacts

Direct impacts to California gnatcatcher habitat include both permanent and temporary impacts to coastal sage scrub vegetation.

Permanent on site impacts include approximately 13.5 acres of occupied gnatcatcher habitat to be removed. Of these 13.5 acres, there are 12.6 acres on site and 0.9 acre in off-site improvement areas (Pala Mesa Heights Drive (0.1 acre), Pankey Road (0.7 acre), and water lines (0.1)). In addition, 1.0 acre of unoccupied coastal sage scrub and disturbed coastal sage scrub would be removed in off-site improvement areas for Pala Mesa Drive (less than 0.1 acre), a portion of Horse Ranch Creek Road (0.7 acre), water lines (0.2 acre), and grading along the site edge (less than 0.1 acre). No California gnatcatchers have been observed south of the site or west of I-15 in these off-site improvement areas and are therefore considered unoccupied. In total, 14.5 acres of occupied and unoccupied suitable habitat would be permanently impacted by the proposed project. Based on the presence of California gnatcatchers within the development area, the proposed project would be a significant impact prior to mitigation (Guideline 3.1.A).

Temporary on site impacts to occupied gnatcatcher habitat are 0.2 acre. Temporary off-site impacts to occupied and unoccupied suitable habitat includes 0.1 acres. These temporary impacts would result from improvements to Pala Mesa Drive (0.1 acre) and Pala Mesa Heights Drive (less than 0.1 acre). These temporary impacts would be significant prior to mitigation (Guideline 3.1.A).

Approximately 166.5 acres of Designated Critical Habitat for the California gnatcatcher occurs within the Meadowood site boundary; approximately 34.2 acres are within the project grading areas. Within the on site grading area, approximately 11.6 acres of Critical Habitat consists of habitat containing PCEs for this species (i.e. coastal sage scrub and disturbed coastal sage scrub vegetation). The remaining 22.6 acres consist of agricultural areas, annual grasslands, and disturbed areas and do not contain PCEs for this species. Off-site, 40.1 acres of Critical Habitat are within proposed off-site improvement areas of which 1.9 acres consists of coastal sage scrub vegetation. A total of 13.5 acres of Designated Critical Habitat that contain PCEs on and off-site will be impacted by the project. These 13.5 acres are included within the 14.5 acres of identified impacts to California gnatcatcher habitat; the remaining impacts to 1.0 acres of gnatcatcher habitat are outside the Critical Habitat boundaries. Impacts to Designated Critical Habitat with PCEs are significant prior to mitigation.

Indirect Impacts

Construction activities and increased human presence in the vicinity of California gnatcatchers and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. Public access into the proposed open space through existing trails may result in edge effects to California gnatcatchers and their habitat. There is also the potential for people and pets to leave trails and enter suitable habitat areas. These edge effects are potentially significant prior to mitigation (Guideline 3.1.A, G and I).

3.2.1.3 Least Bell's Vireo

Least Bell's vireos have been observed in several locations along the San Luis Rey River and Horse Ranch Creek in the vicinity of the project site. No least Bell's vireo or suitable habitat for the least Bell's vireo occurs on site.

Direct Impacts

No direct impacts to least Bell's vireo are anticipated on the site as a result of the proposed project.

It is anticipated that 3.7 acres of occupied southern willow scrub and southern arroyo willow riparian forest habitat would be removed by the construction/widening of Horse Ranch Creek Road, Pala Mesa Drive, and grading along the site edges just off site. Prior to mitigation these effects would be a significant impact to least Bell's vireo (Guideline 3.1.A).

Temporary impacts to 2.2 acres of suitable habitat for least Bell's vireo would occur due to grading along the site edge, Horse Ranch Creek Road, and Pala Mesa Drive construction. Prior to mitigation these effects would be a significant impact to least Bell's vireo (Guideline 3.1.A).

No on or off-site improvements related to this project are anticipated to adversely affect the least Bell's vireo Critical Habitat with PCEs. On site impacts would impact 3.1 acres of least Bell's vireo Critical Habitat consisting of non-native trees and pasture, which are not PCEs for this species.

Indirect Impacts

Construction activities in the vicinity of least Bell's vireos and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. These edge effects are potentially significant prior to mitigation (Guideline 3.1.A and G).

3.2.1.4 Southwestern Willow Flycatcher

No southwestern willow flycatchers have been detected on site or in the vicinity of off-site improvement areas. No on site project impacts would have any direct or indirect adverse impacts on southwestern willow flycatchers and would not remove any suitable habitat for this species.

Direct Impacts

Suitable, but unoccupied, southwestern willow flycatcher habitat may be adversely affected by the Pala Mesa Drive and Horse Ranch Creek Road off-site improvements. These impacts will cover the same permanent impacts associated with removal of least Bell's vireo habitat and include 3.7 acres of southern arroyo willow riparian forest and southern willow scrub. Temporary impacts to 2.2 acres of suitable habitat could occur due to grading along the site edge, Horse Ranch Creek Road, and Pala Mesa Drive construction.

No on or off-site improvements related to this project are anticipated to adversely affect the southwestern willow flycatcher Critical Habitat.

Indirect Impacts

Construction activities in the vicinity of southwestern willow flycatchers and their habitat may result in indirect impacts. Indirect impacts may include increased noise, increased nighttime lighting, erosion, and debris or construction equipment in the preserved habitat. These edge effects are potentially significant prior to mitigation (Guideline 3.1.A and G).

3.2.2 IMPACTS ON SPECIAL STATUS SPECIES

Fourteen special status wildlife species have been recorded on the site and would be adversely affected by development of the proposed project. The species recorded on site include Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, western spadefoot toad, barn owl, western bluebird, northwestern San Diego pocket mouse (San Diego County Group 2) and two-striped garter snake, turkey vulture, northern harrier, and southern California rufous-crowned sparrow (San Diego County Group 1). These species are all California Species of Special Concern except for barn owl, western bluebird, and turkey vulture and are found in the scrub and grassland areas on site. Off-site improvements may also adversely affect an additional seven special status species: green heron, yellow warbler (Group 2) and white-faced ibis, Cooper's hawk, red-shouldered hawk, white-tailed kite, and yellow-breasted chat (Group 1). These species have been observed in riparian habitats along Horse Ranch Creek and the San Luis Rey River.

Coastal sage scrub provides suitable habitat for orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, southern California rufous-crowned sparrow, northern harrier, and northwestern San Diego pocket mouse. Impacts to 14.5 acres of coastal sage scrub are significant prior to mitigation. However, upon mitigation, the anticipated impacts would not substantially diminish or threaten either the regional extent of coastal sage scrub or these species that reside within this vegetation.

Southern mixed chaparral provides habitat for coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, southern California rufous-crowned sparrow, and northwestern San Diego pocket mouse. Impacts to 2.2 acres of southern mixed chaparral would be significant prior to mitigation in spite of this community's abundance throughout the region. However, upon mitigation (on site preservation), the anticipated impacts would not substantially diminish or threaten either the regional extent of southern mixed chaparral or these species that reside within this vegetation.

Non-native grasslands and pastureland provide habitat for orange-throated whiptail, coastal western whiptail, Coronado western skink, San Diego ringneck snake, two-striped garter snake, northern harrier, turkey vulture, barn owl, white-tailed kite and northwestern San Diego pocket mouse. It is expected, however, that impacts to 45.5 acres of non-native grassland and pastureland after project mitigation would not substantially diminish or threaten the regional distribution of these wildlife species.

Southern arroyo willow riparian forest, willow/mule fat scrub and southern willow scrub provide habitat for Coronado western skink, San Diego ringneck snake, two-striped garter snake, yellow warbler, yellow breasted chat, green heron, western bluebird, white-faced ibis, white-tailed kite, red-shouldered hawk, and Cooper's hawk. It is expected, however, that impacts to 3.8 acres of southern arroyo willow riparian forest, willow/mule fat scrub, and southern willow scrub after project mitigation would not substantially diminish or threaten the regional distribution of these wildlife species.

Western spadefoot toads are listed as a California Species of Special Concern and have been recorded within the orchard and disced agricultural areas on the site. Higher quality habitat for this species occurs off-site to the west and south of the site. Based on the regional scarcity of this species, prior to mitigation, impacts to this species would be significant (Guideline 3.1.B).

The scrub and non-native grassland vegetation provides foraging habitat for birds of prey (raptors). Development of the project will permanently impact 14.5 acres of coastal sage scrub, 2.2 acres of chaparral, 45.5 acres of pasture and non-native grassland for a total of 62.2 acres of on site and off-site foraging habitat. Temporary impacts include 0.3 acre of coastal sage scrub, 0.2 acre of chaparral, and 5.0 acres of pasture and non-native grassland for a total of 5.5 acres of on site and off-site foraging habitat. Prior to mitigation, development of these areas, both on and off-site, would be a significant loss of foraging habitat for these species (Guideline 3.1.F).

3.2.3 IMPACTS ON NESTING BIRDS

The Meadowood site and off-site improvement areas provide habitat for a variety of native bird species including raptors. Whereas no nests, including raptor nests, have ever been observed during NRC surveys it remains feasible the site provides nesting habitat for a variety of locally common native and non-native species. Direct disturbance to the nests of species protected by the Migratory Bird Treaty Act would be a violation of this Act. Nests and eggs of these species are also protected under Fish and Game Code Section 3503. Prior to mitigation the anticipated impact on nesting birds is potentially significant (Guideline 3.1.J).

3.2.4 GENERAL INDIRECT IMPACTS

3.2.4.1 Lighting

External community lighting may have an effect on species near the edge of open space if it is allowed to shine into preserved areas. This may cause a significant impact prior to mitigation (Guideline 3.1.G).

3.2.4.2 Noise

Sources of increased urban noise (project construction (temporary) and daily traffic (permanent)) associated with the Meadowood project may create nuisance noise in the vicinity of habitats potentially occupied by California gnatcatcher, least Bell's vireo, and other avian species. Based on an acoustical study completed by RECON, current noise levels adjacent to the I-15 and SR-76 current average noise levels exceed 60 CNEL near Horse Ranch Creek and the San Luis Rey River. These elevated levels are likely to have habituated many species to "urban noise" and anticipated changes in noise levels must be interpreted assuming this existing condition. RECON also generated future projected noise contour lines assuming flat-site conditions. Future ambient noise projected to be generated by I-15, SR-76, Horse Ranch Creek Road, and Pala Mesa Drive exceed 60 CNEL approximately out to the eastern side of the Meadowood site (RECON 2008a). Traffic noise is expected to travel shorter distances than the flat-site contour lines generated by RECON due to attenuation from site topography, vegetation, and proposed buildings. No significant impacts to wildlife in the open space are expected due to traffic related noise. Construction equipment associated with grading can be expected to generate hourly average noise levels between 77 and 91 dB(A) Leq at 50 feet from the source (RECON 2008a). With flat-site and hard site conditions the average noise level at 1,800 feet would be approximately 60 dB(A) Leq.

Construction of off-site facilities will not use large grading equipment and is not expected to generate average noise levels that would adversely affect sensitive wildlife species.

There is no scientific or incidental evidence that suggests increased noise levels (i.e. 60 dB) is a biological relevant threshold for altering or interrupting California gnatcatcher behavior (Awbrey 1993; Awbrey 1995; Attwood and Bontrager 2001). Whereas birds may show some minor avoidance behaviors there is no evidence that foraging, breeding, nesting, or fecundity is significantly affected by traffic or construction noise. No significant indirect impacts to breeding, nesting, or foraging of California gnatcatchers birds is expected to occur as a result of traffic and construction noise.

Increased noise levels may adversely affect breeding and nesting least Bell's vireo and may be significant prior to mitigation (Guideline 3.1.G). Mitigation for these impacts is provided in Section 3.4.1.3.

3.2.5 GUIDELINES THAT DO NOT APPLY

The proposed project would not result in significant impacts under the following guidelines for the following reasons:

- 3.1.C. The project will not impact the regional long-term survival of County Group 2 species with the preservation of a Designated Open Space connected to a larger block of habitat and preservation of riparian habitat off-site.
- 3.1.E. No golden eagles are on site or within 4,000 feet of the site.
- 3.1.H. The project would not impact any core wildlife areas. No core wildlife areas are present within the project footprint or in the vicinity of off-site improvement areas.

3.3 CUMULATIVE IMPACT ANALYSIS

The area encompassing the Rainbow Planning Area, Pala-Pauma Planning Area, Fallbrook Planning Area, Bonsall Planning Area, and the Valley Center Planning Area was used as the study area for the cumulative impacts analysis presented in Sections 3.3, 4.3, 5.3, 6.3, and 7.3 of this document. The area represents a well-defined integrated ecological unit covering 195,715 acres and includes 163,000 acres of the central portion of the San Luis Rey River watershed and home ranges and habitats of sensitive species similar to those found on the project site. The Meadowood site sits roughly in the middle of this cumulative impact study area.

The study area includes both upland (coastal sage scrub, grassland, and chaparral) and lowland (wetlands, oak woodland, and riparian areas) ecoregions. The upland habitat within the study area is within the Northern Foothills and Northern Valley Humid Temperate ecological region. This area from Fallbrook to Bonsall to Lilac to Pala is large enough to include the range of resident upland species and large enough to conduct an adequate cumulative assessment. The lowland habitat includes sensitive riparian species habitat along the San Luis Rey River watershed from Bonsall to Pala. The cumulative projects used in this analysis were obtained using county-wide parcel data joined with tabular data from a discretionary projects file from SanGIS that is updated quarterly. The projects found within the cumulative study area are listed in Table VIII and shown on Exhibit 11. All analyses of cumulative effects presented in Sections 3 thru 6 were completed using ArcGIS 9.2 and data obtained from SanGIS, unless otherwise noted.

For many reasons, including confidentiality agreements and the proprietary nature of much of the biological data collected prior to a project's initiation, an assessment of cumulative impacts are best interpreted on a broad scale.

3.3.1 CUMULATIVE EFFECTS ON SPECIAL STATUS SPECIES

Several proposed projects in the study area have the potential to directly or indirectly impact Designated Critical Habitat, Excluded Essential Habitat or habitat otherwise occupied by arroyo toad California gnatcatcher and least Bell's vireo according to Guidelines 3.1.A and D. Impacts that would be caused by projects in the study area would require a permit through either the Section 10 or Section 7 processes under the Federal Endangered Species Act, as well as other state and local permits. Mitigation would be provided to compensate for impacts. Habitat for these species is also proposed for preservation throughout the cumulative impacts study area through several NCCP/HCP programs (see Section 7 below) which, again, will ensure that impacts are avoided and/or mitigation provided such that long term species viability is ensured. Therefore, potential cumulative impacts to these species **would not be significant** and further analysis of the Meadowood project's potential contributions (which are also mitigated) is not warranted.

Other special status species identified as occurring or likely to occur on the Meadowood site, in and around off-site improvement areas, and in the region include Belding's orange-throated whiptail, coastal western whiptail, San Diego coast horned lizard, Coronado western skink, San Diego ringneck snake, northern red rattlesnake, western spadefoot toad, northwestern San Diego pocket mouse, two-striped garter snake, northern harrier, southern California rufous-crowned sparrow, yellow warbler, yellow breasted chat, western bluebird, green heron, white-faced ibis, turkey vulture, white-tailed kite, red-shouldered hawk, barn owl, and Cooper's hawk (Guidelines 3.1.B and C). While the majority of these species are considered "Species of Special Concern" by the California Department of Fish and Game, most of these species are relatively common in appropriate habitat but are either found in one or a few specific habitats, or are locally distributed subspecies of a more widespread species. The Meadowood site provides suitable foraging, sheltering, or breeding habitat for these species. The majority of the upland habitat, such as coastal sage scrub, chaparral, and grassland, will be preserved on the site to provide for the local and regional conservation needs of these species.

Under current policies, any potential impacts caused by projects in the regional study area would require mitigation under CEQA, generally through the preservation of other open space with appropriate habitat attributes for the

TABLE VIII
CUMULATIVE PROJECTS IMPACT ANALYSIS

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture /Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
1	Meadowood	2009	X	X	X		X	X	X	X	
2	Campus Park West	2004	X			X		X	X		
3	Pala Mesa Highlands	2007	X		X		X	X			
4	Tedder TM	1992			X		X				
5	Hukari Subdivision	2007		X	X	X			X		
6	Fulla Fallbrook Ranch	2007	X	X	X				X		
7	Los Willows Inn and Spa	2004			X						
8	Campus Park	?	X			X	X	X	X		
10	Bridge Pac West 1 TPM	2006			X	X	X				X
11	Pala Mesa Resort	2007	X								
12	Lung TPM	1999									
13	Chipman TPM	2000			X						
14	Bierman TPM	2000				X					
16	Treister TPM	2003	X								
17	Mission Ridge Road TPM	2008	X	X	X			X			

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture /Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
20	Fernandez TPM	2005						X	X		
21	Rabuchin	2005					X				
23	Rosemary Mtn Aggregate Quarry	1997	X	X	X						
25	Prominence at Pala	2006	X	X							
26	Palomar College	2007	X			X	X	X			
27	Caltrans SR 76 Realignment	2007	X		X	X	X				
28	San Luis Rey Municipal Water District	2006									X
30	West Lilac Farms	2006			X	X		X			
32	Marquart Ranch	2007	X						X		
34	Ridge Creek Drive	2007	X		X					X	
35	Club Estates	2006						X			
47	De Jong/Pala Minor Subdivision	1999						X			
48	Crossroads Investors Minor Subdivision	2008				X					
49	Chaffin TPM	2005	X			X	X				

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture /Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
50	John Collins TPM	2001	X								
51	Brannon Trust TPM	2007	X								
52	Dien N Do TPM	2005	X	X	X			X			
55	Atteberry TPM	1999			X						
56	Johnson TPM	2006					X		X		
58	American Lotus Buddhist Associations TPM	2007	X				X				
59	Reche Road TM	2008									X
63	Cameron Subdivision	1999	X								
65	Aspel TPM	2002	X		X	X					
67	Yew Tree Spring Water Corporation	2003			X	X		X			
68	Haugh, Granger TPM	2007	X			X					
69	Brown, Lee, and Karen TPM	2007	X				X	X			
71	Surf Properties TPM	2007			X		X				
72	Brook Hills TM	1993									X

Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture /Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
73	Latter Day Saints Via Monserate	2002					X				
74	Leeds and Strauss	2001	X					X			
77	Crook TPM	2001									X
78	Tabata TM	2004							X		X
81	Sumac TPM	2007									X
85	Woodhead TPM	2001							X		X
89	Sanders TPM	2004							X		X
91	Monserate TM	2006									X
93	Madrigal TPM	2006									X
94	Orange Grove Power Plant	2007	X								X
95	Gregory Landfill	?	X	X	X		X	X			
100	Valentine Trust	2006			X					X	
104	Aguilar TPM	1998	X	X	X						
108	Bonsall Subdivision	2005	X					X			
110	Vande Vegte TM	2005									X
111	Brook Forest	2001	X		X	X	X	X	X		

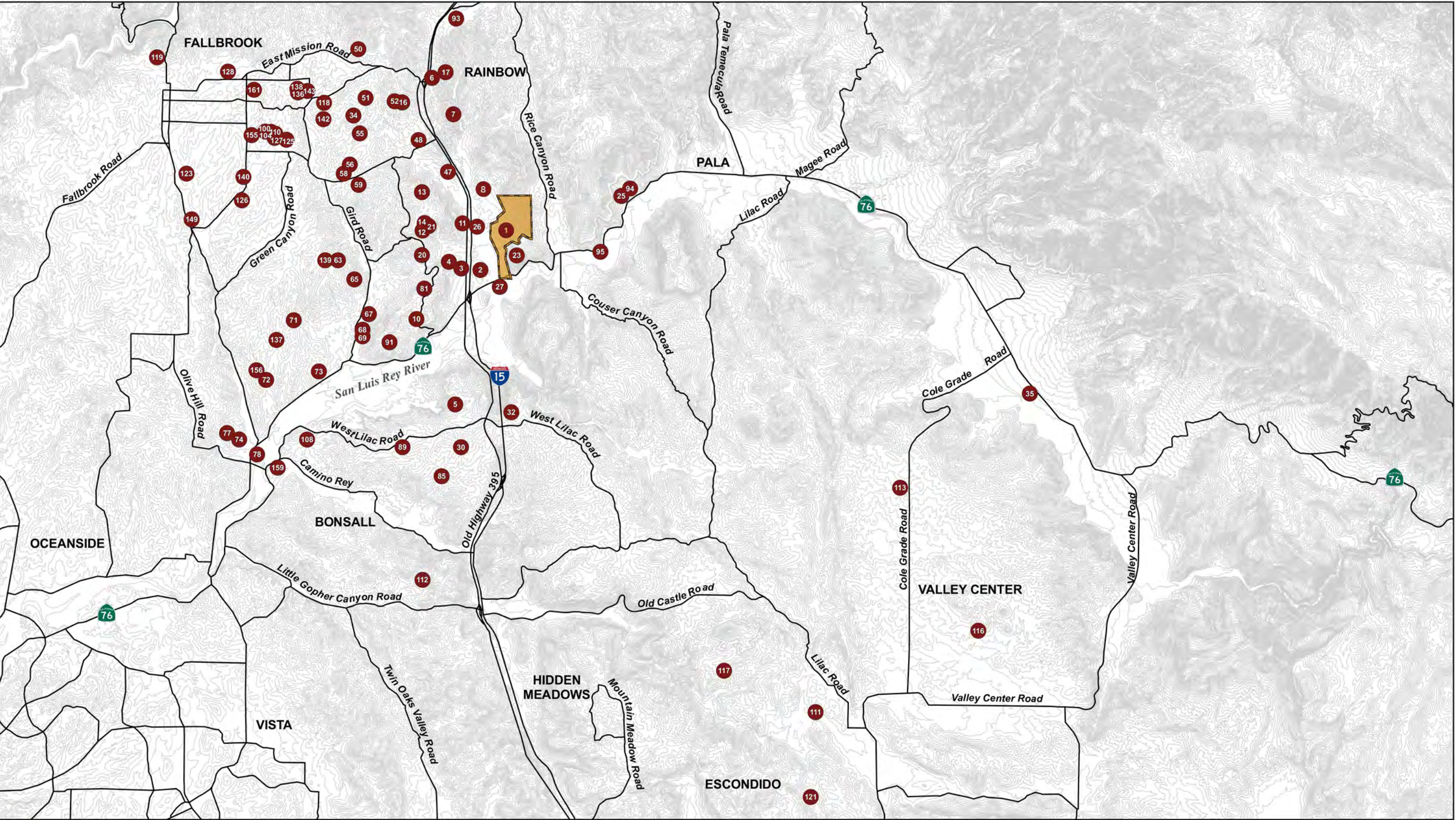
Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture /Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
112	Choi TM	2001	X			X		X			
113	Oak Glen	2006			X				X		
116	Rabbit Run	2006									X
117	Frochlich TM	2006	X						X		
118	White Fox Run TPM	2005	X		X		X	X			
119	Baldwin TM	2006	X	X	X	X		X			
121	Orchard Vista TM	2006	X					X	X		
123	Pepper Tree Park	2005					X				
125	Uchimura TM	2003									X
126	Lash TM	2002						X			X
127	Heritage Homebuilders TM	1993			X	X					
128	Kesonovich TM	1989			X						
136	Hormuth TPM	1999			X						
137	Arkeder TPM	2002			X	X					
138	Amos Family Trust TPM	2001	X		X		X				
139	White TPM	2001	X				X				


Map Key	Project Name	Year Processed	Coastal Sage Scrub	Chaparral*	Oak Woodlands**	Riparian Habitats***	Other Wetland	Non-native Grassland	Agriculture /Pasture	Eucalyptus Woodland	Biological Impacts Not Specified
140	Heritage Oaks TPM	1999			X						
142	Zebu TPM	2001	X		X						
143	Compton TPM	2004	X		X	X					
149	Pacifica Estates	2006	X				X	X			
155	Ferraro TPM	2004				X		X			
156	Palomar Dr. Subdivision	2005	X			X	X	X			
159	Golf Green Estates	2006					X				
161	The Crest	2003	X				X	X			

*Includes all types of chaparral including chamise chaparral, southern mixed chaparral, scrub oak chaparral, and granitic chaparral.

** includes live oak woodland, Engelmann oak woodland and Southern coast live oak riparian woodland.

*** includes riparian scrub, willow scrub, mule fat scrub and southern willow riparian woodland.



 Meadowood Site Boundary

NOTE: Numbers on dots correspond with project numbers on Table VIII.

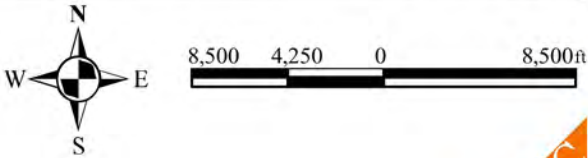


EXHIBIT 11: CUMULATIVE PROJECTS
MEADOWOOD | SAN DIEGO COUNTY, CALIFORNIA



sensitive species being affected. Should the North County MSCP be adopted, preservation of habitat for these species would be incorporated into regional planning and cumulative impacts to these species **would not be significant**. Without the adoption of the MSCP impacts to these Species of Special Concern would be significant prior to mitigation. Site design and mitigation for impacts to habitat at appropriate mitigation ratios is expected to ensure the long term survival of these species and reduce these impacts to **less than significant**.

3.4 MITIGATION MEASURES

All “significant” project related impacts associated with the Meadowood project are reduced to a level that is less than significant by one or more project-specific mitigation measures. Mitigation measures are identified that will meet RPO standards (development may be allowed where mitigation provides an equal or greater benefit to the affected species (Sec. 86.604 (f))) and County Guidelines for Determining Significance. General and species specific design considerations will ensure avoidance of additional impacts to the species. It should be noted that the project proponent has been participating in the development of the North County MSCP and has negotiated an area within which development will occur. The project will not preclude formation of a regional preserve.

3.4.1 MITIGATION FOR IMPACTS ON THREATENED OR ENDANGERED SPECIES

3.4.1.1 *Arroyo Toad*

To minimize adverse indirect effects to the arroyo toad, the following mitigation measures shall be implemented by the project applicant:

(Guidelines 3.1.A and 3.1.D)

- a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.
- b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.
- c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.
- d. A storm drain system and detention basins shall be constructed to restrict excess water flow from proposed roads and structures associated with the Meadowood project. Filter devices shall be installed at the appropriate points to ensure that run-off is cleansed before reaching the basins. All water-catchment features shall be located above graded and natural slopes.
- e. Nighttime lighting shall be shielded and directed away from riparian and upland habitat adjacent to the development.

3.4.1.2 *California Gnatcatcher*

The proposed project would impact 13.5 acres of occupied habitat on site and off-site (Horse Ranch Creek Road, Pankey Road, Pala Mesa Heights, and water lines). The project would also impact an additional 1.0 acres of unoccupied habitat off-site for Pala Mesa Drive, water lines, a portion of Horse Ranch Creek Road, and grading along

the site edge for a total of 14.5 acres of suitable habitat (coastal sage scrub and disturbed coastal sage scrub) for the California gnatcatcher. Additionally, the project would have temporary impacts to 0.2 acre of occupied gnatcatcher habitat on site and 0.1 acre of unoccupied habitat off-site.

To minimize adverse indirect effects to the California gnatcatcher the following mitigation measures shall be implemented by the project applicant:

(Guidelines 3.1.A, 3.1.G, and 3.1.I)

- a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.
- b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.
- c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.
- d. Nighttime lighting shall be shielded and directed away from coastal sage scrub habitat adjacent to the development.
- e. Signs shall be placed at trailheads to inform hikers of the sensitive nature of the habitat and to stay on designated trails. This will limit encroachment into the open space to the maximum extent that is practicable.

To minimize adverse direct effects to the California gnatcatcher, the following mitigation measures shall be implemented by the project applicant: (Guidelines 3.1.A and 3.1.G)

- f. Habitats will be mitigated on site at a ratio of 2:1 for coastal sage scrub and disturbed coastal sage scrub for a total of 29.0 acres or in accordance with the County guidelines. Temporary impacts would be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan submitted as part of the project. This would mitigate direct impacts associated with on and off-site improvements to the California gnatcatcher associated with the proposed project. The mitigation land will also cover impacts to designated Critical Habitat for the California gnatcatcher. This mitigation will be incorporated into an ongoing Section 7 consultation pertaining to this project between the ACOE and USFWS.
- g. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.
- h. Prior to any grading or native vegetation clearing associated with project construction, a directed survey shall be conducted to confirm the presence or absence of the California gnatcatcher on site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (February 15 through August 31). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may continue within approved grading limits.

- i. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 dB(A) in the immediate vicinity of an active gnatcatcher nest.

The project is designed in compliance with the San Diego County Noise Ordinance (Sections 36.401 et seq.) and the San Diego County Noise Element. The 100-foot Limited Building Zone Easement will also provide a buffer between residential noise and lighting and the open space. With these design features and mitigation measures these indirect effects would not be significant.

3.4.1.3 *Least Bell's Vireo*

There are no direct on site impacts to least Bell's vireo habitat as a result of the proposed project. The project's off-site improvement areas (Horse Ranch Creek Road, Pala Mesa Drive, and grading along the site edges just off site) will remove approximately 3.7 acres of occupied southern willow scrub and southern arroyo willow riparian forest habitat resulting in a permanent impact. Temporary impacts associated with off-site improvements include 2.2 acres of suitable habitat.

To minimize adverse indirect effects to the least Bell's vireo the following mitigation measures shall be implemented by the project applicant:

(Guidelines 3.1.A and 3.1.G)

- a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.
- b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.
- c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.
- d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development.

To minimize adverse direct effects to the least Bell's vireo, the following mitigation measures shall be implemented by the project applicant: (Guidelines 3.1.A and 3.1.G)

- e. Under the County's guidelines, vireo habitat shall be mitigated at 3:1 for riparian vegetation types for a total of 11.1 acres. Temporary impacts shall be mitigated through revegetation of the riparian vegetation with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan submitted as part of the project. This would mitigate direct impacts associated with off-site improvements to the least Bell's vireo associated with the proposed project. This mitigation will be incorporated into an ongoing Section 7 consultation pertaining to this project between the ACOE and USFWS. The habitat will be a southern willow scrub or willow riparian forest habitat occupied by least Bell's vireo similar to that affected by the project.
- f. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the

boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.

- g. Prior to any grading or native vegetation clearing associated with project construction, a directed survey shall be conducted to confirm the presence or absence of the least Bell's vireo on site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (March 15 through September 15). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may continue within approved grading limits.
- h. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active vireo nest.

The project is designed in compliance with the San Diego County Noise Ordinance (Sections 36.401 et seq.) and the San Diego County Noise Element. The 100-foot Limited Building Zone Easement will also provide a buffer between residential noise and lighting and the open space. With these design features and mitigation measures these indirect effects would not be significant.

3.4.1.4 Southwestern Willow Flycatcher

For southwestern willow flycatcher the project's off-site improvement areas would remove approximately 3.7 acres of unoccupied but suitable southern arroyo willow riparian forest habitat. Off-site improvements would also result in temporary impacts to 2.2 acres of suitable habitat.

To minimize adverse indirect effects to the southwestern willow flycatcher the following mitigation measures shall be implemented by the project applicant:

(Guidelines 3.1.A and 3.1.G)

- a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.
- b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.
- c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.
- d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development.

To minimize adverse direct effects to the southwestern willow flycatcher, the following mitigation measures shall be implemented by the project applicant: (Guidelines 3.1.A and 3.1.G)

- e. Under the County's guidelines, flycatcher habitat shall be mitigated at 3:1 for riparian vegetation types for a total of 11.1 acres. Temporary impacts shall be mitigated through revegetation of the riparian vegetation

with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan submitted as part of the project. This would mitigate direct impacts associated with on and off-site improvements to the southwestern willow flycatcher associated with the proposed project. This southwestern willow flycatcher mitigation is the same mitigated riparian habitat as for least Bell's vireo. This mitigation will be incorporated into an ongoing Section 7 consultation pertaining to this project between the ACOE and USFWS.

- f. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing will be recommended and subsequently installed by a qualified biologist.
- g. Prior to any grading or native vegetation clearing associated with project construction, a directed survey shall be conducted to confirm the presence or absence of the southwestern willow flycatcher on site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (May 1 through September 1). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may continue within approved grading limits.
- h. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active flycatcher nest.
- i. The project is designed in compliance with the San Diego County Noise Ordinance (Sections 36.401 et seq.) and the San Diego County Noise Element. The 100-foot Limited Building Zone Easement will also provide a buffer between residential noise and lighting and the open space. With these design features and mitigation measures these indirect effects would not be significant.

It is important to note that all of the above-described mitigations may be implemented under the proposed MSCP. As such the mitigation will, to the extent feasible, be within an area that is designated as suitable for mitigation as part of a regional preserve.

3.4.2 MITIGATION FOR IMPACTS ON SPECIAL STATUS SPECIES (GUIDELINES 3.1.B AND 3.1.F)

- a. Proposed preservation of 115.6 acres of open space on site within a regional open space network would offset the loss of 62.2 acres of foraging habitat for birds of prey and other special status species. Temporary impacts would be mitigated through revegetation of foraging habitat with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan submitted as part of the project. In addition, mitigation of 11.1 acres of riparian forest and scrub habitat would provide for equal or greater benefit to special status species such as western spadefoot toads. As discussed above for federal and state listed species, indirect impact mitigation for sensitive species will include shielding lighting away from the open space, monitoring noise levels during construction, orange construction fencing, and silt fencing. Signs will be placed at trailheads to inform hikers of the sensitive nature of the habitat and to stay on designated trails. After mitigation the anticipated impacts on sensitive species is less than significant.
- b. The site supports marginal yet occupied habitat for the western spadefoot toad within the project boundaries, and, western spadefoot have been captured in pitfall traps located along the western and southern property boundaries during focused arroyo toad upland habitat studies conducted from 2003-2007. To offset potential impacts to this species, western spadefoot shall be trapped and relocated prior to project grading. Relocation of toads shall occur prior to and during project grading. The timing and duration of the relocation program shall be based on the activity period of the western spadefoot (generally associated with

rainfall and temperature) and proposed construction schedule. Trapping shall occur along the existing pitfall traps located along the western and southern property boundaries and monitored prior to and during proposed construction activities. Any western spadefoot found in the traps shall be collected, noted and translocated to predetermined receptor sites. Trapping and relocation shall be conducted by a biologist familiar with the biological natural history of the western spadefoot and possesses a CDFG Memorandum of Understanding (MOU) for conducting these activities. At the end of the relocation effort, the biologist shall prepare a summary report noting the number of western spadefoot relocated, the location of the area to which they were moved, and other pertinent facts. The report shall be submitted to the County and CDFG.

3.4.3 MITIGATION FOR IMPACTS ON NESTING BIRDS (GUIDELINE 3.1.J)

- a. To avoid impacts to nesting birds, vegetation clearing shall take place outside of the nesting season, roughly defined as mid-February to mid-September. Vegetation clearing activities could only occur within potential nesting habitat during the breeding season with written concurrence from the Director of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. If vegetation removal is to take place during the nesting season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided. After mitigation the anticipated impact on nesting birds is **less than significant**.
- b. Prior to any grading or native vegetation clearing during the nesting/breeding season for raptors (roughly from mid-February through mid-July), a directed survey shall be conducted to locate active raptor nests, if any. If active raptor nests are present, no grading or removal of habitat will take place within 500 feet of any active nesting sites. If other non-listed bird nests are present, no grading or removal of habitat will take place within 300 feet of any active nesting sites. The project proponent may seek approval from the Director of DPLU if nesting activities cease prior to July 15.
- c. Prior to any grading or native vegetation clearing associated with project construction, a directed survey shall be conducted to confirm the presence or absence of the California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher on site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat will take place within 500 feet of active nesting sites during the nesting/breeding season (February 15 through August 31 for gnatcatcher, March 15 through September 15 for vireo, and May 1 through September 1 for flycatcher). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may continue within approved grading limits with written concurrence from DPLU, USFWS and CDFG.

3.4.4 MITIGATION FOR GENERAL INDIRECT IMPACTS (GUIDELINE 3.1.G)

Best Management Practices shall be used to minimize all edge effects of lighting and noise.

3.4.4.1 Lighting

All communal lighting associated with the project shall be shielded and directed away from the urban/natural edge. The project is designed to be in compliance with the San Diego County Light Pollution Code (Sections 59.101-59.115). A lighting plan is included within the Conceptual Landscaping Plan which shows required lighting adjacent to the open space as being shielded, unidirectional, low pressure sodium illumination (or similar), and directed away from preserve areas using appropriate placement and shields. These measures are expected to bring lighting associated with increased residential lighting to **below a significant level**.

3.4.4.2 Noise

Traffic noise is expected to travel shorter distances than the flat-site contour lines generated by RECON due to attenuation from site topography, vegetation, and proposed buildings. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average.

The project is designed in compliance with the San Diego County Noise Ordinance (Sections 36.401 et seq.) and the San Diego County Noise Element. The 100-foot Limited Building Zone Easement will also provide a buffer between residential noise and lighting and the open space. With these mitigation measures these indirect effects **would not be significant**.

3.5 CONCLUSIONS

All direct, indirect, and temporary impacts to the sensitive plant and wildlife species associated with on- and off-site improvements would be mitigated to a **less than significant** level. Direct impacts to 13.5 acres of occupied California gnatcatcher habitat and 1.0 acres of unoccupied, suitable habitat are mitigated by preservation of 29.0 acres on site. Direct impacts to 3.7 acres of occupied least Bell's vireo habitat are mitigated by preservation of 11.1 acres off-site. Direct impacts to 3.7 acres of unoccupied, suitable southwestern willow flycatcher habitat are mitigated with the same riparian habitat as least Bell's vireo. The mitigation measures pertaining to federally listed species have been incorporated into an ongoing Section 7 consultation pertaining to this project between the ACOE and USFWS.

4.0 RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITIES

4.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

The following guidelines from the County of San Diego Report Format and Content Requirements for biological resources were used to determine the significance of the project on riparian habitat and/or sensitive natural communities. These conditions will be applied to the proposed project and where significant impacts are anticipated they will be labeled to identify specific conditions listed below (i.e. 4.1.A through 4.1.E). Jurisdictional wetlands are discussed in Section 5.0.

- A. Project-related construction, grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat on or off the project site.
- B. Any of the following will occur to or within jurisdictional wetlands and/or riparian habitats as defined by ACOE, CDFG, and the County of San Diego: removal of vegetation; grading; obstruction or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity and abundance.
- C. The project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of three feet or more from historical low groundwater levels.
- D. The project would increase human access or competition from domestic animals, pests or exotic species to levels proven to adversely affect sensitive habitats.
- E. The project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

4.2 ANALYSIS OF PROJECT EFFECTS

4.2.1 COASTAL SAGE SCRUB AND DISTURBED COASTAL SAGE SCRUB

Coastal sage scrub vegetation covers approximately 87.1 acres (22.4 percent) of the Meadowood site. The proposed development would remove approximately 12.6 acres on site, approximately 1.9 acres off-site for a total of 14.5 acres. Temporary impacts include 0.2 acre on site and 0.1 acre off-site. Coastal sage scrub is a “sensitive habitat land” under the RPO Sec. 86.602(n) as it is substantially depleted in the region and habitat for the California gnatcatcher. Prior to mitigation, removal coastal sage scrub/disturbed coastal sage scrub would be a significant impact of the proposed project (Guideline 4.1.A).

4.2.2 SOUTHERN MIXED CHAPARRAL

Southern mixed chaparral vegetation covers approximately 19.6 acres (5.0 percent) of the Meadowood site. The proposed development would remove approximately 2.2 acres on site. The County of San Diego designates southern mixed chaparral as a sensitive vegetation community due to its value to special status species and rarity in the region. However, it would not be considered a “sensitive habitat land” under the RPO Sec. 86.602(n). Removal of southern mixed chaparral would be a significant impact of the proposed project (Guideline 4.1.A).

4.2.3 WETLAND VEGETATION

4.2.3.1 On Site Wetland Vegetation

The sparse willow/mule fat scrub and associated wetland vegetation covers less than 0.1 acre (less than 0.1 percent) on the Meadowood site. The proposed development would remove all of the willow/mule fat scrub on site. The jurisdictional evaluation of the site determined that this area supports 0.14 acre of isolated wetland. The acreage difference is due to the specific criteria used in determining the wetland for federal and state permitting requirements (GLA 2007). The Resource Protection Ordinance Section 86.602(q)(2)(aa) states that lands having wetland attributes solely due to man-made structures, have negligible biologic function and value, and that do not support a substantial or locally important population of wetland dependent species are not considered to be “wetlands.” The area in question exists due to runoff from the adjacent legal agricultural operation. The area would cease to be a wetland if the agricultural activities were terminated. The area is also isolated from any other wetlands by surrounding agriculture and supports no populations of sensitive wetland-dependent species. As such, it was determined with County staff agreement that this area is not an RPO wetland. Prior to mitigation, impacts to wetland vegetation are significant (Guidelines 4.1.A and 4.1.B).

A 100-foot wetland buffer is designed around the western portion of the site adjacent to willow riparian forest vegetation of Horse Ranch Creek. This width is adequate to protect the riparian forest that has been heavily grazed by cattle. No other wetland buffer is needed due to the pending development of the adjacent property that would remove the wetland vegetation. Regarding wetland buffers on Horse Ranch Creek, the project would have no significant impact under Guideline 4.1.E.

4.2.3.2 Off-site Wetland Vegetation

Off-site improvement areas would include permanent impacts to southern willow scrub (less than 1.0 acre), southern arroyo willow riparian forest (2.8 acres), and freshwater marsh (0.3 acre). Total on- and off-site permanent impacts to wetland vegetation would be 4.1 acres. Prior to mitigation, removal of riparian/wetland vegetation would be a significant impact of the proposed project (Guideline 4.1.B).

The off-site improvements that would cause direct, permanent impacts to jurisdictional wetlands include the extension of Pala Mesa Drive, grading along the site edge, and construction of Horse Ranch Creek Road. These off-site improvements will impact the riparian vegetation surrounding Horse Ranch Creek. Horse Ranch Creek is an ephemeral stream that is fed from two narrow drainages northwest of the Meadowood site along either side of I-15. West of the Meadowood site, as the terrain becomes more level, the riparian vegetation associated with Horse Ranch Creek widens into a large area of southern arroyo willow riparian forest. Horse Ranch Creek continues to the south as it passes under SR-76 to the San Luis Rey River. Prior to mitigation, removal of off-site riparian/wetland vegetation for Pala Mesa Drive and Horse Ranch Creek Road would be a significant impact of the proposed project (Guideline 4.1.B).

The off-site wetlands to be impacted by construction of Horse Ranch Creek Road consist of southern willow scrub and freshwater marsh north of the main Horse Ranch Creek drainage and are RPO wetlands. The off-site development of Horse Ranch Creek Road traverses properties that have a previously approved Specific Plan. The Specific Plan associated with these properties has been exempted from the strict avoidance of impact provisions of RPO per Section 86.605(b). Regarding wetland buffers, the project would have no impact under Guideline 4.1.E.

The off-site Pala Mesa Drive impacts to wetland areas around Horse Ranch Creek meet the definition of RPO wetlands. The off-site improvements for Pala Mesa Drive are designed to avoid as much of the main riparian forest vegetation around Horse Ranch Creek as possible while adhering to all safety regulations for the road. The road will avoid the main drainage of the creek by using the existing bridge from Pankey Road. This will avoid impacts to the larger drainage downstream, the San Luis Rey River. The portion of Pala Mesa Drive that provides access to the western boundary of the site was designed to avoid fragmenting the larger portion of riparian forest to the north. As designed, construction of Pala Mesa Drive would avoid or minimize impacts to the riparian vegetation and drainage of Horse Ranch Creek. In addition, impacts for Pala Mesa Drive extension are for the required construction of a Circulation Element Road through an area that is part of an existing Specific Plan. These impacts are the minimum necessary to make improvements to existing roads necessary for public safety and are an “essential public facility” under the RPO Sec. 86.602(d) and Sec. 86.605(c). No wetland buffer can be established between the riparian forest and the edge of Pala Mesa Drive. The road was designed to meet public safety standards and is designed to minimize impacts to riparian vegetation. The off-site development of Pala Mesa Drive traverses properties that have a previously approved Specific Plan. The Specific Plan associated with these properties has been exempted from the strict avoidance of impact provisions of RPO per Section 86.605(b). Regarding wetland buffers, the project would have no impact under Guideline 4.1.E.

Temporary, direct impacts due to Pala Mesa Drive, Horse Ranch Creek Road, and grading along the site edge would include less than 0.1 acre of southern willow scrub and 2.1 acres of riparian forest. Prior to mitigation, these impacts would be significant (Guideline 4.1.B).

4.2.4 COAST LIVE OAK WOODLAND

The County of San Diego designates coast live oak woodland as a sensitive vegetation community due to its value to special status species and rarity in the region. However, it would not be considered a “sensitive habitat land” under the RPO Sec. 86.602(n). Coast live oak woodland covers approximately 1.7 acres (0.4 percent) of the Meadowood site. The proposed development would remove approximately 0.1 acre on site and approximately 0.2 acre off-site. The project will also remove 0.4 acre of the 50-foot oak root zone on site and 1.1 acres off-site for a total of 1.5 acres. Many of these trees are individual oak trees within coastal sage scrub and chaparral. These 1.5 acres of oak root zone have already been accounted for with impacts to coastal sage scrub, chaparral, and disturbed impacts. Prior to mitigation, removal of coast live oak woodland would be a significant impact of the proposed project (Guideline 4.1.A).

4.2.5 NON-NATIVE GRASSLAND

The County of San Diego designates non-native (annual) grassland as a sensitive vegetation community due to its value to special status species and rarity in the region. However, it would not be considered a “sensitive habitat land” under the RPO Sec. 86.602(n). Non-native grassland vegetation covers approximately 31.9 acres (8.2 percent) of the Meadowood site. The proposed development would remove approximately 9.9 acres on site and approximately 5.4 acres off-site for a total of 15.3 acres. Temporary impacts include less than 0.1 acre on site and 2.1 acres off-site. Prior to mitigation, removal of non-native grassland would be a significant impact of the proposed project (Guideline 4.1.A).

4.2.6 AGRICULTURE

Agriculture areas cover approximately 209.9 acres (53.9 percent) of the site. Proposed development on the Meadowood site would result in the removal of approximately 162.5 acres on site and approximately 3.8 acres off-site of lands committed to various agricultural activities including citrus and avocado groves. Temporary impacts include 0.3 acre on site and 1.4 acre off-site. Impacts to agriculture lands would not be significant.

4.2.7 NON-NATIVE TREES

Non-native trees cover approximately 8.3 acres (2.1 percent) of the site. The proposed development would remove 8.1 acres on site and 1.0 acre off-site for a total of 9.1 acres. Temporary impacts would include 0.2 acre off-site. Removal of non-native trees would not be a significant impact of the proposed project.

4.2.8 OPEN WATER

The man-made open water ponds cover approximately 0.7 acre of the site. The proposed development would remove the 0.7 acre on site and no acres off-site. Removal of these open water ponds would not be a significant impact of the proposed project.

4.2.9 PASTURE

The County of San Diego designates pasture as a sensitive vegetation community due to its value to special status species and rarity in the region. However, it would not be considered a “sensitive habitat land” under the RPO Sec. 86.602(n). Pasture areas cover approximately 1.5 acres (0.4 percent) of the site. Proposed development on the Meadowood site would result in the removal of approximately 1.5 acres on site and 28.7 acres off-site for a total of 30.2 acres. Temporary impacts include 2.8 acres off-site. The pasture land is composed of non-native grasses and has a similar habitat value as non-native grassland. Removal of this vegetation community would be a significant impact prior to mitigation (Guideline 4.1.A).

4.2.10 DISTURBED AND DEVELOPED

The disturbed and developed areas cover approximately 28.7 acres (7.4 percent) of the site. The proposed development would remove approximately 20.3 acres on site and 19.5 acres off-site. Meadowood will provide 5.9 miles of multi-use trails (hiking and horseback riding). Existing dirt roads in the natural open space and agricultural open space will contribute to this trail system. These trails would allow for increased human and pet access to the open space and may cause potentially significant impacts to sensitive habitats prior to mitigation (Guideline 4.1.D). Temporary impacts include less than 0.1 acre on site and 0.3 acre off-site. Removal of these disturbed areas would not be a significant impact of the proposed project.

4.2.11 GUIDELINES THAT DO NOT APPLY

The proposed project would not result in significant impacts to sensitive habitats under the following guidelines for the following reasons:

- 4.1.C. The project would not draw down the groundwater table to the detriment of groundwater-dependent habitat. The groundwater may be utilized for irrigation or other water uses. If so, it will not be increased above existing consumption levels. Groundwater usage may decrease from existing levels if recycled water is used for irrigation of the preserved agriculture areas.
- 4.1.E The project provides an adequate 100-foot wetland buffer around the western portion of the site.

4.3 CUMULATIVE IMPACT ANALYSIS

As discussed above in Section 4.2, the proposed project will directly affect coastal sage scrub, oak woodlands, non-native grassland (including pasture), southern arroyo willow riparian forest, southern willow scrub, willow/mule fat scrub, freshwater marsh and chaparral (Guidelines 4.1.A and B). Within the cumulative study area, 83 projects are known to support one or more of these habitat types (Exhibit 11). Impacts to sensitive vegetation communities would require mitigation on a project-by-project basis, while mitigation measures provided in Section 4.4 are sufficient to mitigate the Meadowood project's minimal contribution to these impacts. These cumulative projects are also required to follow these mitigation measures and provide for open space to protect these vegetation communities. Cumulative impacts to riparian habitats and other sensitive natural communities **are not significant**.

4.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Development of the Meadowood site would result in impacts (both on- and off-site) to a variety of vegetation communities.

4.4.1 GUIDELINE 4.1.A

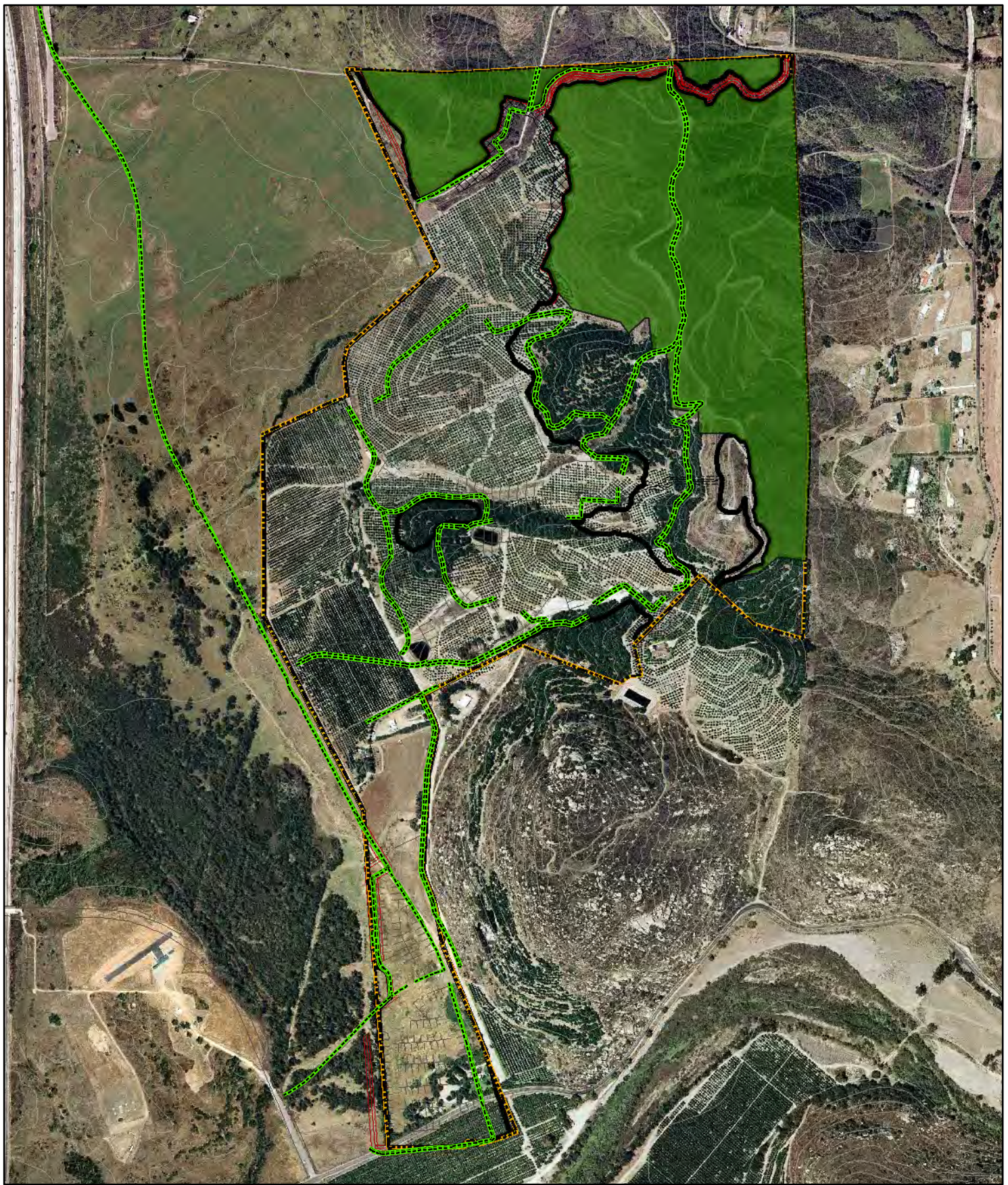
- a. A total of 171.7 acres (44.1 percent) of vegetation communities on the Meadowood site shall be preserved. Included in these 171.7 acres are 122.4 acres of natural open space (including 5.9 acres of impact neutral areas and 0.9 acre PA1 open space) and 49.3 acres (including 1.9 acre disturbed area) of agricultural open space. The 171.7 acres of open space includes 8.4 acres of disturbed/developed land, which generally consist of dirt roads and trails, and will be retained for facility access and public access purposes within the open space and agricultural open space. Approximately 5.9 acres of the preserved vegetation would not count towards mitigation because the installation of new water tanks and an access road in the southeastern corner will isolate it from the preserved habitat to the north. These 5.9 acres are impact neutral.
- b. County guideline ratios and mitigation acreages are presented in Table IX for on site and off-site habitat. Approximately 115.6 acres of the preserved vegetation shall count towards mitigation. The above-described natural open space would be sufficient to provide in-kind mitigation for potentially significant impacts to disturbed coastal sage scrub, southern mixed chaparral, oak woodland, and non-native grassland both on and off-site (Exhibit 12).

The proposed 115.6 acres of natural vegetation to be preserved is consistent with the hardlined "Preserve" under the proposed North County MSCP. Preserving this location contributes valuable sensitive species habitat to the regional preserve and, as such, it meets preserve design criteria. The northern portion of the project provides a connection between the northwestern coastal sage scrub hill and open space to the north

TABLE IX
ACREAGE OF ON-SITE AND OFF-SITE VEGETATION COMMUNITY IMPACTS AND REQUIRED MITIGATION

Vegetation Community	Existing (On Site)	Permanent On-site Impacts	Permanent Off-site Impacts	Mitigation Ratio	Mitigation Required	Preserved (On Site)	Impact Neutral	Off-site Mitigation
Agriculture	209.9	162.5	3.8	0:1	0.0	47.4	0.6	0.0
Non-native grassland	31.9	9.9	5.4	0.5:1	7.7	22.0	2.0	0.0
Coastal sage scrub (CSS)/Disturbed CSS	87.1	12.6	1.9	2:1	29.0	74.5	2.8	0.0
Southern mixed chaparral	19.6	2.2	0.0	0.5:1	1.1	17.5	0.0	0.0
Non-native trees	8.3	8.1	1.0	0:1	0.0	0.2	0.0	0.0
Pastureland	1.5	1.5	28.7	0.5:1	15.1	0.0	0.0	2.7**
Coast live oak woodland	1.7	<0.1	0.2	3:1	0.9	1.7	0.0	0.0
Willow/ mule fat scrub	<0.1	<0.1	0.0	3:1	0.3	0.0	0.0	0.3
Southern willow scrub	0.0	0.0	1.0	3:1	2.7	0.0	0.0	2.7
Southern arroyo willow riparian forest	0.0	0.0	2.8	3:1	8.4	0.0	0.0	8.4
Freshwater marsh	0.0	0.0	0.3	3:1	0.9	0.0	0.0	0.9
Open water	0.7	0.7	0.0	0:1	0.0	0.0	0.0	0.0
Disturbed/developed areas	28.7	20.3	19.5	0:1	0.0	8.4	0.5	0.0
TOTAL ACRES	389.5	217.8*	64.6*		65.8*	171.7	5.9	15.0

*Totals may not add up correctly due to rounding. **Only 2.7 acres of off-site mitigation is needed for pastureland due to the amount of non-native grassland preserved on site. Some off-site impacts are internal to adjacent projects. If those projects are built prior to the construction of the Meadowood project the off-site impacts and required mitigation will be reduced accordingly.



Eric Kline, Natural Resource Consultants, 18 May 2009, Proj_GIS\pardse\meadowood\workspaces\2009\bio_resources\openspace.mxd

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|--|-----------------------|--|--------------------|
| | Boundary | | Natural Open Space |
| | On Site Impact Area | | Trails |
| | Temporary Impact Area | | Lot Plan |
| | Limited Building Zone | | |
| | Brush Management Zone | | |

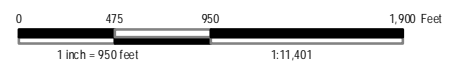


EXHIBIT 12: OPEN SPACE MAP

MEADOWOOD | COUNTY OF SAN DIEGO, CALIFORNIA



and east. The preserved open space on site is not isolated, is contiguous with off-site vegetation, and is part of a wildlife movement area (Corridor 1) for wildlife moving towards the core areas located to the east near the Pala Indian Reservation.

- c. Permanent impacts to pasture shall be mitigated through off-site purchase of 2.7 acres of pasture or similarly functioning land. Temporary impacts to sensitive vegetation communities would be mitigated through revegetation with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan submitted as part of the project.

4.4.2 GUIDELINE 4.1.B.

- a. Significant impacts for the less than 0.1 acre of mule fat scrub on site and 4.0 acres of southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh off-site shall be mitigated through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres off-site or as defined through required state and federal wetland permits (see Table IX). Temporary impacts to riparian vegetation communities shall be mitigated through revegetation with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan submitted as part of the project.
- b. A 100-foot wetland buffer is designed around the western portion of the site adjacent to willow riparian forest vegetation of Horse Ranch Creek. Details of the wetland mitigation are described in the “Wetland Mitigation Plan for the Meadowood Specific Plan Project, County of San Diego California” (Appendix F) and the “Conceptual Resources Management Plan for the Meadowood Site” (Appendix G) (RECON 2008b, 2008c).
- c. Impacts to riparian habitat shall be mitigated at a ratio of 3:1 off-site and shall overlap impacts noted in Section 4.2. The wetland mitigation area is described in the “Wetland Mitigation Plan for the Meadowood Specific Plan Project, County of San Diego California” (RECON 2008b). Impacts to coastal sage scrub and disturbed coastal sage scrub habitat shall be mitigated on site at a ratio of 2:1 as noted in Section 4.2.

4.4.3 GUIDELINE 4.1.D

- a. The existing network of dirt roads within the preserved portions of the site would contribute to 5.9 miles of trails through the Meadowood site including the open space areas. This will allow access to the eastern ridge and eastern portion of the open space. The project has been designed to limit human and domestic animal access to sensitive habitats. Public trails in the open space shall use existing dirt roads and trails. Signs shall be placed at trail heads to inform hikers of the sensitive nature of the habitat and to stay on designated trails. For the most part, the agricultural open space will buffer the residential development from the open space. The only area where residential lots are adjacent to the open space is in the northeast portion of the Proposed Project, within PA 5. The lots in this area will include backyard fences and will be separated from the open space by a manufactured slope ranging from 12 to 71 feet in height. This will limit access to the open space from humans and domestic animals. No invasive plant species shall be used in the landscaping palette.
- b. As noted in the Conceptual Resources Management Plan prepared by RECON in Appendix G, the biological open space and any off-site mitigation area (e.g. wetlands) shall be owned and maintained by a conservancy, the County or other similar, experienced entity subject to approval by the County. Funding will be provided through the Community Facility District or other finance mechanism approved by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within

Meadowood could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

- c. Preserved land on and off-site shall total 186.7 acres including 74.5 acres of coastal sage scrub vegetation.

4.5 CONCLUSIONS

All impacts to riparian habitat and sensitive natural communities associated with the Meadowood project have been mitigated to a **less than significant** level. Preservation of the 115.6 acres of open space on site will be sufficient to provide in-kind mitigation for potentially significant impacts to coastal sage scrub, southern mixed chaparral, non-native grassland, both on- and off-site. The proposed 115.6 acres of natural vegetation to be preserved is consistent with the hardlined “Preserve” under the proposed North County MSCP. Additional off-site mitigation for impacts to pasture would consist of 2.7 acres. Wetlands will be mitigated through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres. A 100-foot wetland buffer is designed around the western portion of the site adjacent to willow riparian forest vegetation of Horse Ranch Creek. Signs will be placed at trail heads to inform hikers of the sensitive nature of the habitat and to stay on designated trails. These mitigation measures satisfy the RPO regarding impacts to sensitive habitat lands, wetlands, and wetland buffers. Details of the wetland mitigation and resource management are described in the “Wetland Mitigation Plan for the Meadowood Specific Plan Project, County of San Diego California” and “Conceptual Resources Management Plan for the Meadowood Site” (RECON 2008b, 2008c) (Appendices F and G).

5.0 JURISDICTIONAL WETLANDS AND WATERWAYS

5.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

Guidelines of Significance for jurisdictional wetlands and waterways are discussed in Section 4.1.

5.2 ANALYSIS OF PROJECT EFFECTS

5.2.1 ON SITE IMPACTS

Jurisdictional delineations were conducted by GLA and REC Consultants Inc.(REC) on and off-site. The following data were taken from their delineations reports. GLA’s delineation reports, which include REC’s pertinent delineation data for the project are included in Appendix E. The on site development of the Meadowood project would remove 0.83 acre of ACOE jurisdictional waters of which 0.14 acre are jurisdictional wetlands as defined by the ACOE. Within CDFG jurisdiction the project would remove 1.05 acres of jurisdictional waters. The project will have a significant adverse impact to jurisdictional wetlands and riparian habitats (Guideline 4.1.B.). The project will not impact RPO wetlands because Drainage 4 (0.14 acre) is not considered an RPO wetland due to its isolation and dependence on agriculture irrigation runoff (Sec. 86.602(q)(2)(aa).). A 100-foot wetland buffer is designed along the western boundary of the site adjacent to the off-site willow riparian forest vegetation of Horse Ranch Creek. A summary of the on site jurisdictional wetland impacts is provided in Table X.

TABLE X. ON SITE JURISDICTIONAL IMPACT ACREAGE

Jurisdiction	Existing On Site	Permanent Impacts to Jurisdictional Waters
ACOE	1.06	0.83
CDFG	1.58	0.93

5.2.2 OFF-SITE IMPACTS

Off-site improvements for extending Pala Mesa Drive and construction of Horse Ranch Creek Road improvements through riparian areas would also impact jurisdictional drainages and wetlands (GLA 2008). The GLA delineation report for on site development includes a portion of Horse Ranch Creek Road which has been redesigned and is now considered off-site. Since the publication of the Public Notice on September 22, 2008, the applicant in cooperation with the County of San Diego has completed a new traffic study in May 2009 that indicates the deletion of the following offsite roadway improvements, as they are not necessary for implementation of the project: Stewart Canyon Road, intersection of Old Highway 395 at Mission Road, and Intersection of I-15 southbound ramp at Mission Road. A new public notice was not necessary because the resulting proposed project was less impacting to the environment, reduced the on and off-site improvements, and provided the least impact roadway extension for Pala Mesa Drive and Street R. In the off-site impacts to jurisdictional waters below the latest analysis has been included. These impact acreage numbers differ from the detailed acreages of the impacts presented in GLA's delineation reports included in the September 22, 2008 Public Notice (Appendix E). A summary of the off-site jurisdictional wetland impacts is provided in Table XI.

The off-site improvements for Pala Mesa Drive and Horse Ranch Creek Road would temporarily impact 2.04 acres of ACOE jurisdictional wetlands and permanently impact 2.29 acres ACOE wetlands. The off-site improvements would temporarily impact 2.04 acres of CDFG jurisdiction vegetated riparian habitat and less than 0.01 acre of unvegetated streambed and permanently impact 2.29 acres of CDFG vegetated riparian habitat and less than 0.01 acre of unvegetated streambed. Permanent linear-foot impacts under ACOE and CDFG jurisdiction total 2,246 linear feet. The off-site improvements would temporarily impact 2.04 acres and permanently impact 2.29 acres of RPO wetlands which support vegetated riparian habitat of RPO wetlands. Impacts to ACOE, CDFG, and RPO jurisdictional wetlands are significant prior to mitigation (Guideline 4.1.A and 4.1.B).

TABLE XI. OFF-SITE JURISDICTIONAL IMPACT ACREAGE

Jurisdiction	Temporary Off-site Impacts	Permanent Off-site Impacts	Total Off-site Impacts (Permanent and Temporary)*
ACOE	2.04	2.29	4.34
CDFG	2.04	2.29	4.34
County (RPO)	2.04	2.29	4.34

*Total impact acreages may not add up correctly due to rounding.

5.3 CUMULATIVE IMPACT ANALYSIS

The central portion of the San Luis Rey River watershed was analyzed for impacts to jurisdictional wetlands associated with all known projects (Exhibit 11). Jurisdictional wetlands have the potential to be removed by proposed projects in the study area. The majority of these potential impacts are likely to be avoided to comply with the RPO. Permanent impacts to 2.43 acres of ACOE wetland, 2.63 acres of CDFG vegetated riparian habitat, and 2.29 acres of RPO wetlands will be contributed by the Meadowood project. Wetlands on site are dependent on agriculture runoff and serve little value to regional wetlands areas. Mitigation for on and off-site impacts to wetlands at 3:1 will ensure no net loss of wetlands. Most of these impacts will require mitigation through the appropriate agencies on a project-by-project basis, while mitigation measures provided in Section 5.4 are sufficient to mitigate the Meadowood project's minimal contribution to these impacts. Cumulative impacts to jurisdictional wetlands **are not expected to be significant** with project-specific mitigation.

As stated previously, a detailed analysis of impacts to jurisdictional wetlands and waterways is provided under separate cover by Glenn Lukos Associates. As impacts to jurisdictional features are regulated by the Federal Clean Water Act and the California Fish and Game Code, both of which require permits and mitigation measures, cumulative impacts to jurisdictional wetlands and waterways are not expected to be significant.

5.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Impacts to jurisdictional wetlands shall follow the terms and conditions of permits and agreements with ACOE and CDFG. Mitigation for on and off-site impacts shall include appropriate compensations for proposed removal ACOE, CDFG, and RPO waters and wetlands. As stated in Sections 4.2 and 4.4, non-RPO wetland vegetation on site and RPO wetlands off-site shall be mitigated at a ratio of 3:1 and will consist of purchase and dedication of replacement habitat and revegetation of disturbed riparian habitat. Mitigation for ACOE jurisdictional wetlands, CDFG vegetated riparian habitat, and RPO wetlands include considerable overlap. The 9.7 acres of mitigation for CDFG, as described below, would provide the mitigation area for all three jurisdictional types. Revegetated areas will be analyzed for natural site hydrology and appropriate conditions to support riparian vegetation. A wetland mitigation plan has been prepared by RECON and is included in Appendix F. It is anticipated that this will satisfy state and federal agency mitigation requirements.

- a. Within ACOE jurisdiction the project would permanently impact 0.83 acre of jurisdictional waters and wetlands on site. The off-site development of the Meadowood project would result in permanent impacts to 2.29 acres of ACOE jurisdiction. At 3:1, total impacts of 3.12 acres shall be mitigated with 9.36 acres of ACOE jurisdictional waters and wetlands.
- b. Within CDFG jurisdiction on site, the project would permanently impact 0.93 acres of jurisdictional waters, and vegetated riparian habitat. Within CDFG jurisdiction off-site, the project would result in permanent impacts to 2.29 acres. At 3:1, total impacts of 3.22 acres shall be mitigated at 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat.
- c. The project would remove 0.14 acre of riparian vegetation on site that is not considered an RPO wetland. The project would also result in permanent impacts to 2.29 acres of RPO wetlands off-site. At 3:1, total impacts of 2.29 acres shall be mitigated at 6.87 acres of RPO wetlands.
- d. The project would also result in temporary impacts to 2.04 acres of ACOE jurisdiction, 2.04 acres of CDFG jurisdiction, and 2.04 acres of RPO wetlands. Temporary impacts shall be mitigated through revegetation of riparian habitat with the same species present.

5.5 CONCLUSIONS

The on site and off-site development areas of the Meadowood project will result in permanent impacts to 3.12 acres, of ACOE jurisdiction of which 2.43 acres are wetlands, 3.22 acres of CDFG jurisdiction, and 2.29 acres of RPO wetlands. The on site and off-site development areas of the Meadowood project will result in temporary impacts to 2.04 acres of ACOE jurisdiction, 2.04 acres of CDFG jurisdiction, and 2.04 acres of RPO wetlands. Through a mitigation ratio of 3:1 all impacts to jurisdictional wetlands associated with the Meadowood project have been mitigated to a **less than significant** level.

6.0 WILDLIFE MOVEMENT AND NURSERY SITES

These guidelines will be applied to the proposed project and where significant impacts are anticipated they will be labeled to identify the Guidelines of Significance listed below (i.e. 5.1.A through 5.1.F).

6.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

- A. The project would prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.
- B. The project would substantially interfere with a local or regional wildlife corridor or linkage.
- C. The project would create artificial wildlife corridors that do not follow natural movement patterns.
- D. The project would increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.
- E. The project does not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses to it, and placement of barriers in the movement path.
- F. The project does not maintain adequate visual continuity (i.e., long lines-of-site) within wildlife corridors or linkage.

6.2 ANALYSIS OF PROJECT EFFECTS

6.2.1 PROJECT EFFECTS ON WILDLIFE MOVEMENT AND NURSERY SITES

Three wildlife movement corridors on or near the site are shown on Exhibit 9.

The fire access road will be paved and vary in width from 20 - 24 feet extending northeasterly from Street E to Rice Canyon Road that will partially follow existing dirt roads that cross Corridor 1 in the northeastern corner of the site. The elevation of the road ranges from approximately 520 at the cul-de-sac to a peak elevation of 740 at the ridge with manufactured slopes, some exceeding 60 feet in height. The fire access road will not create a barrier to wildlife movement as it will not have fences or walls along its edge and will not be elevated significantly above the natural contours of the hillside. Wildlife will be able to move freely across the road to adjacent vegetation to the north and south.

Similarly, the project would not adversely affect Corridors 2 and 3. Off-site widening and realignment of SR-76 permitted by other applicants is adjacent to Corridor 2 along the San Luis Rey River. The SR-76 improvements would not result in any physical or visual obstruction to wildlife movement along Corridor 2. No off-site improvements would occur near Corridor 3 in Rice Canyon located east of the project.

The riparian habitat along Horse Ranch Creek is a stepping stone or habitat island for riparian and migratory birds and a local path for small animal movement, but is not considered a movement corridor. No large wildlife species such as deer are expected to use this drainage due to the extensive barb wire fencing to the north and south and road barriers such as I-15, Horse Ranch Creek Road, and SR-76. The drainage varies from more than 1,200 feet to less than 100 feet wide. The construction of Pala Mesa Drive to the west of the site is south and west of the main drainage of Horse Ranch Creek. This area is also proposed for development of Campus Park (Exhibit 9). The proposed location of the road will not obstruct local small wildlife species travel within the riparian vegetation, prevent access to water sources or foraging habitat, or prevent migratory birds from utilizing the area. The Meadowood project would not result in any significant impacts to any known wildlife movement corridors on or in the vicinity of the site.

6.2.2 Guidelines That Do Not Apply

The proposed project would not result in significant impacts under the following guidelines for the following reasons:

- 6.1.A The project would not prevent wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction. No barriers will be created that isolate portions of breeding habitat such as coastal sage scrub, and prevent access by wildlife, such as southern California rufous-crowned sparrow and orange-throated whiptail. The project has been designed to avoid the three mapped wildlife movement corridors in the area. The main drainage channel of Horse Ranch Creek will be avoided by road construction and the existing bridge will continue to be used as is.
- 6.1.B. The project would not interfere with a wildlife corridor or linkage. Impacts near Corridor 1 include installation of water tanks and improvements to access roads that are currently adjacent to the corridor. These improvements would not substantially change the structure of the corridor from its current state.
- 6.1.C. The project would not create artificial wildlife corridors. Corridor 2 would not be altered or rerouted. Site development would not adversely affect wildlife movement within any movement areas in upland habitat (e.g., ridgelines) north or east of the property (Corridor 1). Proposed impacts for a water tank site and access road in the eastern portion of the site are not expected to significantly affect the path of Corridor 1. There is currently a large tank and access road in this proposed impact area. New water tanks will be placed where a tank is currently present on the top of the ridgeline above the path of wildlife movement. Large wildlife species such as coyotes have been observed using the existing access road and eastern slope that provide the least path of resistance from this area to Monserate Mountain to the north. Although additional tanks will be placed at the highest point on the ridge in the same area as the existing tank, it should not affect the wildlife movement because they prefer the road and slopes below the existing tank. A portion of the access road south of the tanks will be improved, but will occupy the same approximate area as the existing road. Installation of the water tanks and routine maintenance would be brief and infrequent and are not anticipated to affect wildlife movement near the tank site. These improvements will not cause a barrier to wildlife movement. Past experience has also shown that such limited facilities will not significantly change the visual features of the area and should not affect the movement of large wildlife species. Wildlife would be able to continue using Corridor 1 without altering their current path of travel along the access roads and eastern slope.
- 6.1.D. The project has been designed to reduce noise and nighttime lighting to levels that will not significantly impact wildlife behavior. Lighting will be directed away from the surrounding habitat. Noise will not be sustained at levels that would disrupt wildlife movement during construction or general traffic conditions.
- 6.1.E The project would not restrict the width of any wildlife corridors through removal of vegetation or barrier. Corridor 1 would remove a small amount of vegetation around the existing tank, but this is on a raised peak that is not part of the path for wildlife movement. The tank site would remain as a tank site and will not create additional barriers to wildlife movement.
- 6.1.F. The tank site and access roads near Corridor 1 would not be altered significantly and therefore would not change the visual continuity of the corridor.

6.3 CUMULATIVE IMPACT ANALYSIS

At a regional scale, wildlife movement and core use areas in southern California have been analyzed by the South Coast Wildlands (SCW), a non-profit group that works collaboratively with state and federal agencies to devise plans to maintain natural habitat connections between core habitat areas (Guideline 6.1.B). SCW has identified one large movement corridor between protected areas that enters the northern portion of the cumulative study area. The majority of this corridor is on public land, and though it has some potential to be impacted without future

preservation, there is currently limited development proposed along the southern edge of this corridor in the cumulative study area. The Meadowood project is not located within this large movement corridor and will not contribute to a cumulative impact. Other, more local effects on wildlife movement (project-by-project) are addressed through measures incorporated into project design and would prevent cumulative effects from reaching a significant level.

6.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

The project has been designed to avoid the three mapped wildlife movement corridors in the area, and therefore no significant impacts to wildlife corridors are expected and no mitigation measures are proposed. The following design considerations will ensure avoidance of any significant impacts to wildlife movement.

- a. Local wildlife and migratory bird movement within the island of riparian habitat along Horse Ranch Creek will be avoided by constructing Pala Mesa Drive south of the main drainage, allowing the existing bridge to be left in its existing condition, allowing existing wildlife to continue to use this area. Vegetation disturbed by excavation for Pala Mesa Drive will be revegetated.
- b. The project has been designed to reduce noise and nighttime lighting to levels that will not significantly impact wildlife behavior. Lighting will be directed away from the surrounding habitat. Lighting along Pala Mesa Drive will follow normal requirements by the County to maintain safety. Noise will not be sustained at levels that would disrupt wildlife movement during construction or general traffic conditions.
- c. The proposed tank location has been designed around the existing water tank to reduce any new visual or physical barriers to wildlife movement along Corridor 1. Similarly, the access road to the water tanks will follow an existing road. The development area on the Meadowood site has also been designed to avoid Corridor 1 by limiting development to the lower elevations consisting of mostly agriculture vegetation and leaving the natural vegetation on the ridge intact. The preservation of the habitat functioning as a wildlife corridor satisfies the RPO for sensitive habitat lands.
- d. Signs will be placed at trail heads to inform hikers of the sensitive nature of the habitat and to stay on designated trails. For the most part, the agricultural open space will buffer the residential development from the open space. The only area where residential lots are adjacent to the open space is in the northeast portion of the Proposed Project, within PA 5. The lots in this area will include backyard fences and will be separated from the open space by a manufactured slope ranging from 12 to 71 feet in height. This will limit encroachment into the open space and wildlife movement corridors to the maximum extent that is practicable. As noted in the Conceptual Resources Management Plan prepared by RECON, the biological open space and any off-site mitigation area (e.g. wetlands) will be owned and maintained by a conservancy, the County or other similar, experienced entity subject to approval by the County. The Plan will preclude disturbance of vegetation through habitat management within the preserved open space on site that is part of wildlife movement Corridor 1.

6.5 CONCLUSIONS

Development of the Meadowood site and associated off-site improvement areas would not impact regional wildlife movement. The proposed water tank and tank access road location has been designed around the existing water tank and access road to reduce any new visual or physical barriers to wildlife movement along Corridor 1. Construction of Pala Mesa Drive will not adversely affect access to local foraging and breeding habitat as it will be located south of the main Horse Ranch Creek drainage area. Utilizing the existing Pankey Road bridge will allow for continued access for small wildlife to riparian vegetation to the southwest. All impacts to wildlife movement for the Meadowood project have been avoided through appropriate project design considerations and are **less than significant**.

7.0 LOCAL POLICIES, ORDINANCES AND ADOPTED PLANS

7.1 GUIDELINES FOR THE DETERMINATION OF SIGNIFICANCE

- A. For lands outside of the MSCP, the project would impact coastal sage scrub vegetation in excess of the County's 5 percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub Natural Communities Conservation Planning Process (NCCP) Guidelines.
- B. The project would preclude or prevent the preparation of the subregional NCCP. For example, the project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.
- C. The project will impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO).
- D. The project would not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.
- E. The project does not conform to the goals and requirements as outlined in any applicable Habitat Conservation Plan (HCP), Habitat Management Plan (HMP), Special Area Management Plan (SAMP), Watershed Plan, or similar planning effort.
- F. For lands within the MSCP, the project would not minimize impacts to Biological Resources Core Areas (BRCAs), as defined in the Biological Mitigation Ordinance (BMO)
- G. The project would preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.
- H. The project does not maintain existing movement corridors and/or habitat linkages as defined by the BMO.
- I. The project does not define impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.
- J. The project would reduce the likelihood of survival and recovery of listed species in the wild.
- K. The project would result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (Migratory Bird Treaty Act).
- L. The project would result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

7.2 ANALYSIS OF PROJECT EFFECTS

CEQA Appendix G and the County's Significance Guidelines, specify that reports address impacts of a proposed development on resources protected by local ordinances and Natural Community Conservation Plans.

7.2.1 NCCP (GUIDELINES 7.1.A, 7.1.B, 7.1.D, 7.1.G, 7.1.J)

Based on the allowed "take" of coastal sage scrub vegetation within the County of San Diego under the NCCP 4(d) Rule (approximately 11,000 acres), the anticipated impacts associated with the Meadowood project would not exceed the 5 percent allowance and would not be significant under Guideline 7.1.A. If the project proceeds prior to the adoption of the MSCP the project would comply with the Southern California Coastal Sage Scrub NCCP Guidelines and the County's Habitat Loss Permit Process. The project minimizes impacts to coastal sage scrub, preserving 85.5 percent on site, and mitigates those acres of impacted sage scrub according to appropriate NCCP mitigation ratios.

7.2.2 HLP (GUIDELINES 7.1.A, 7.1.B, 7.1.D, 7.1.G, 7.1.J)

The County implements the 4(d) Rule and NCCP Guidelines through the Habitat Loss Permit (HLP) process. Projects with coastal sage scrub, both occupied and unoccupied, can receive take authorization by obtaining an HLP, eliminating the need for a Section 7 consultation or Habitat Conservation Plan. The HLP is typically granted prior to grading, and requires that certain findings be made. These findings and the project's compliance, are summarized below, and would be expanded and finalized by County staff when the actual permit is granted:

- The habitat loss does not exceed the 5 percent guideline: As of late September 2007, the County's allowed loss was roughly 1,800 acres of coastal sage scrub. The Meadowood project will result in the permanent loss of 14.5 acres of coastal sage scrub and temporary loss of 0.3 acres. Project impacts would not be significant under Guideline 7.1.A.
- The habitat loss will not preclude connectivity between areas of high habitat values: Project open space is directly connected to planned open space to the north and east. Project impacts would not be significant under Guideline 7.1.G
- The habitat loss will not preclude or prevent the preparation of the subregional NCCP: Meadowood was planned in conjunction with the proposed North County MSCP. That proposed plan shows this property as "Take Authorized" and "Preserve." The project is consistent with the proposed MSCP map. Project impacts would not be significant under Guideline 7.1.B.
- The habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with Section 4.3 of the NCCP Process Guidelines: There are 87.1 acres of coastal sage scrub on site. The proposed project will permanently remove approximately 14.5 percent (12.6 acres). An additional 1.9 acres of coastal sage scrub will be affected off-site due to the construction of necessary public infrastructure. Temporary impacts include 0.2 acre on site and 0.1 acre off-site. Loss of coastal sage scrub has been avoided to the maximum extent practicable. Mitigation for permanent impacts to coastal sage scrub vegetation communities will be provided on site at a ratio of 2:1. Temporary impacts to coastal sage scrub would be mitigated through revegetation with the same species found within the impact area and is therefore not considered a loss of habitat. The revegetation areas are shown on the Conceptual Landscape Plan submitted as part of the project. If additional mitigation is needed off-site, it will be provided within the proposed MSCP PAMA. Without mitigation, project impacts would be significant under Guideline 7.1.D.
- The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild. The proposed loss of less than 15 acres of possible habitat for the California gnatcatcher will not affect species survival over the long term. Impacts will be mitigated by the preservation of habitat that is located within the proposed PAMA for the North County MSCP. Project impacts would not be significant under Guideline 7.1.J.
- The habitat loss is incidental to otherwise lawful activities: The proposed project must be approved by the San Diego County Board of Supervisors, and by definition is a lawful activity.

7.2.3 RESOURCE PROTECTION ORDINANCE (GUIDELINE 7.1.C)

The project will impact the following habitats which are considered sensitive habitat lands under the RPO: 14.5 acres of California gnatcatcher coastal sage scrub habitat of which 13.5 acres are occupied. The small northwest wetland area, Drainage 4, is a man-made drainage fed by agriculture runoff and is not an RPO-defined wetland. Wetlands

within off-site improvement areas for Pala Mesa Drive and Horse Ranch Creek Road are considered RPO wetlands. However, these off-site roadway improvements would occur through properties that have a previously approved Specific Plan. The Specific Plan associated with these properties has been exempted from the strict avoidance of impact provisions of the RPO per Section 86.605(b). Mitigation for the identified wetland impacts would still be required. A 100-foot RPO wetland buffer is proposed along the riparian woodland west of the southwestern boundary of the site where adjacent development will not occur. Impacts to habitat for federal and state listed species and special status species are discussed in Section 3.2. Project impacts would be significant under Guideline 7.1.C.

7.2.4 NORTH COUNTY MSCP (GUIDELINES 7.1.F, 7.1.H, 7.1.I)

Implementation of the Meadowood project will not adversely affect the ongoing North County MSCP planning process. The project saves the majority of natural and naturalized vegetation and concentrates development in an area that may generally be characterized as low in biological quality. The project was planned with the MSCP and important biological resources are proposed to be designated as Dedicated Open Space. All of the natural open space being provided within the Meadowood project is adjacent to PAMA, and as such, provides a valuable contribution to the regional biological preserve that is currently being planned. The project will not preclude the development of a regional preserve system or block any known regional movement corridor or habitat linkage. Any off-site impacts associated with the development of Meadowood are also being planned in a manner to ensure that impacts are minimized. The construction of Horse Ranch Creek Road through the adjacent property to the existing terminus of Pankey Road and the extension of Pala Mesa Drive are being planned to minimize any impacts to jurisdictional wetlands by limiting their width and length to only what is needed to achieve public safety standards. The extension of a water line will also be done in a manner that minimizes impacts by following disturbed areas, agricultural areas, and similar areas of low biological importance. A fire access road is proposed in the preserve and is an allowed use. The fire access road has already been approved by the USFWS and is included in their draft Biological Opinion that is currently under internal review. The grading that is necessary for this access is included in the development impacts even though it is located in the proposed North County preserve. The fire access road does cut across the preserve but, will not be bordered by a fence, wall, or other barrier to wildlife movement to the north and south. There is currently a dirt road that cuts through the habitat from east to west in the approximate location of the proposed access road. Cut and fill needed to create the road will change the topography of the area and may slightly alter how wildlife travel over localized portions of the road. Wildlife mortality or disruption of wildlife behavior is not anticipated with the development of this access road. Furthermore, as the road will connect to an existing road off-site, there will be no off-site impacts.

7.2.5 MIGRATORY BIRD TREATY ACT (GUIDELINE 7.1.K)

The Meadowood site and off-site improvement areas provide habitat for a variety of native bird species including raptors. No nests, including raptor nests, were observed during surveys. Direct disturbance to the nests of species protected by the Migratory Bird Treaty Act would be a violation of Migratory Bird Treaty Act of 1918. Nests, eggs, and the birds themselves of these species are also protected under Fish and Game Code Section 3503. Prior to mitigation, the anticipated impact on nesting birds is potentially significant (Guideline 7.1.K).

There are no biological resources on the Meadowood site protected by local ordinances that are not addressed elsewhere in this report.

7.2.6 GUIDELINES THAT DO NOT APPLY

The proposed project would not result in significant impacts under the following guidelines for the following reasons:

7.1.E. There are no applicable management plans covering the project area.

7.1.F. The project site is not within the adopted MSCP and is not subject to the BMO.

- 7.1.H. The project site is not within the adopted MSCP and is not subject to the BMO.
- 7.1.I. The project is being designed to be in compliance with the proposed North County MSCP. The project does not impact any narrow endemic plant species as defined in the existing MSCP. Project impacts to sensitive species were analyzed. The project conserves significant land suitable for California gnatcatchers. Impacts to least Bell's vireo and arroyo toads will be minimized as discussed in Section 3.2.
- 7.1.L. The project would not result in the take of eagles, eagle eggs or any part of an eagle. No eagles were observed in the vicinity of the site.

7.3 CUMULATIVE IMPACT ANALYSIS

The cumulative impact study area was analyzed with the Meadowood project to determine the significance of cumulative impacts under local policies, ordinances and adopted plans as well as the draft North County MSCP.

7.3.1 WETLANDS AND SENSITIVE HABITAT LANDS UNDER THE RPO

This project along with other projects listed in Section 4.3 will contribute to cumulative impacts to RPO sensitive habitat lands. Cumulative impacts on sensitive habitat are discussed in Section 4.3. Wildlife corridor cumulative impacts protected under the RPO are discussed in Section 6.3. Cumulative wetland impacts are discussed in Section 5.3 (Guideline 7.1.C).

7.3.2 COASTAL SAGE SCRUB

As stated in Section 4.3, coastal sage scrub covers a large area throughout the cumulative impact study area. Several projects within the cumulative impact study area have the potential to impact coastal sage scrub habitats. This would be a significant cumulative impact on this sensitive plant community prior to mitigation. Impact contributions to mature and disturbed coastal sage scrub on site and off-site by the proposed Meadowood project amount to 14.5 acres of permanent impacts and 0.3 acres of temporary impacts.

The County's MSCP serves as a Subregional and Subarea NCCP covering some of the unincorporated lands in the southern portion of the County. The County is currently working on an MSCP Subarea Plan for North County. The impacts to coastal sage scrub have been minimized and mitigated by preserving the larger portion of the scrub as open space and connected to a larger block of coastal sage scrub habitat. The project's open space is consistent with the proposed hardline preserve in the draft North County MSCP. Since the project has been designed to contribute to the regional preserve system, Meadowood's impacts to coastal sage scrub would be less than cumulatively considerable.

Preservation of large blocks of habitat is a key component of the state Southern California Coastal Sage Scrub NCCP. The preservation of 85.5 percent of the existing on site coastal sage scrub in the open space on site complies with this NCCP. The loss of 12.6 acres on site and an additional 1.9 acres off-site would not exceed the County's 5 percent threshold.

As discussed in Section 4.4 of this report, implementation of mitigation measures for impacts to coastal sage scrub and disturbed coastal sage scrub would preserve 74.5 acres of coastal sage scrub and disturbed coastal sage scrub on site of which 71.5 acres are eligible for mitigation (Guideline 7.1.D). This would mitigate impacts to a level that is not significant. It is expected that other projects will also minimize and mitigate impacts to a large portion of existing coastal sage scrub through compliance with the NCCP requirements and the adopted MSCP. The cumulative impacts to coastal sage scrub are not expected to be significant.

7.4 MITIGATION MEASURES AND DESIGN CONSIDERATIONS

7.4.1 NCCP (GUIDELINES 7.1.A, 7.1.B, 7.1.D, 7.1.G, 7.1.J)

Impacts to 14.5 acres of coastal sage scrub/disturbed coastal sage scrub on and off-site shall be mitigated at 2:1 by in-kind preservation of 29.0 acres of coastal sage scrub/disturbed coastal sage scrub on site. The project will not preclude the development of the proposed MSCP preserve, and will contribute to the assembly of that proposed preserve as it was planned in conjunction with the proposed MSCP. With mitigation impacts to coastal sage scrub are **not considered significant**.

7.4.2 HLP (GUIDELINES 7.1.A, 7.1.B, 7.1.D, 7.1.G, 7.1.J)

An HLP will not be required as take authorization of the California gnatcatcher and removal of coastal sage scrub habitat will be obtained through a Section 7 consultation with the USFWS. As noted above, habitat loss will not exceed the County's 5 percent coastal sage scrub loss threshold and will not preclude connectivity between areas of high habitat values. The property has "Take Authorized" and "Preserve" designated on the site in conjunction with the proposed North County MSCP preserve design. Impacts to 14.5 acres of coastal sage scrub habitat shall be mitigated at 2:1. Preservation of 71.5 acres of coastal sage scrub on the site will be used as mitigation and is part of the 115.6 acres of mitigation open space. The coastal sage scrub habitat preserved on the site is occupied California gnatcatcher habitat. The preservation of this habitat that is connected to other large areas of coastal sage scrub will help sustain the long term survival of the California gnatcatcher in San Diego County.

7.4.3 RESOURCE PROTECTION ORDINANCE (GUIDELINE 7.1.C)

Under the RPO, impacts to sensitive habitats shall be mitigated according to the County's Guidelines for Determining Significance as stated in Section 3.4 and 4.4 to provide equal or greater benefit to affected species (Sec. 86.604 (f)). Preservation of the 115.6-acre open space on site and preservation of 2.7 acres of pasture and 12.3 acres of riparian vegetation off-site would fully mitigate for these impacts to sensitive habitat lands. California gnatcatcher coastal sage scrub habitat shall be preserved on site at a 2:1 ratio, which will provide a greater benefit to the species by conserving land that is connected to a larger block of habitat to the north. Impacts to 3.7 acres of least Bell's vireo and southwestern willow flycatcher sensitive riparian habitat shall be mitigated at a 3:1 ratio (12.3 acres of riparian vegetation) to provide equal or greater benefit to the species off-site in suitable riparian habitat. In addition to mitigation for direct impacts associated with the loss of occupied habitat, mitigation measures shall also be established to offset indirect impacts such as noise, lighting, and edge effects as discussed in Section 3.4.

Development in the southern section of the Meadowood site would require a 100-foot buffer from the southern wetland area of Horse Ranch Creek near the southwest boundary of the site (Sec. 86.604(b)). In some areas, approximately 100 feet of buffer currently exists between the riparian canopy edge and the west boundary of the site and no additional buffer is necessary. In other areas, along the southwestern property boundary, a 100-foot buffer has been provided as shown on the Exhibit 4. No significant impacts are expected towards the wetland area as a result of the on site development activities. Mitigation measures for impacts to other sensitive habitats, including wildlife corridors, are discussed in Sections 4.4 and 6.4 of this report.

7.4.4 MSCP (GUIDELINES 7.1.F, 7.1.H, 7.1.I)

The open space designated on the site corresponds to the proposed preserve shown on the draft North County MSCP.

7.4.5 MIGRATORY BIRD TREATY ACT (GUIDELINE 7.1.K)

To avoid impacts to nesting birds protected by the Migratory Bird Treaty Act, project grading shall take place outside of the nesting season, roughly defined as mid-February to mid-September. In the event that grading activities need to occur within proximity of open space or breeding habitat during the breeding season, then written concurrence must be provided by the Director of Planning and Land Use (DPLU), the USFWS, and the CDFG. If grading is to take place during the nesting season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided. After mitigation the anticipated impact on migratory birds is **less than significant**. Mitigation for impacts to migratory birds is also discussed in Section 3.4.3

7.5 CONCLUSIONS

All applicable local ordinances, policies, and plans have been complied with in designing the Meadowood project.

Impacts to California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher habitat will be mitigated according to the appropriate ratios under the County's guidelines. This mitigation will provide equal or greater benefit to the species in accordance with the RPO for sensitive habitat lands. Impacts to coastal sage scrub (California gnatcatcher habitat) and disturbed coastal sage scrub will be mitigated at 2:1. Impacts to least Bell's vireo and southwestern willow flycatcher riparian habitat would be mitigated at 3:1 as described in the wetland mitigation plan.

An HLP will not be required as take authorization of the California gnatcatcher and removal of coastal sage scrub habitat will be obtained through a Section 7 consultation with the USFWS.

The open space designated on the site is consistent with the proposed draft North County MSCP. To avoid impacts to nesting birds protected by the Migratory Bird Treaty Act, project grading shall take place outside of the nesting season, roughly defined as mid-February to mid-September.

In the event that grading activities need to occur within proximity of open space or breeding habitat during the breeding season, then written concurrence must be provided by the DPLU, the USFWS, and the CDFG.

8.0 SUMMARY OF PROJECT IMPACTS AND MITIGATION

The following list contains the mitigation measures and project design elements to avoid, minimize, or mitigate for significant impacts to biological resources adversely affected by the proposed project.

- The project was designed to consolidate development in a compact footprint, considering all other County land use requirements and regulations.
- Mitigation measures to avoid indirect impacts to federal and state listed species include employee and contractor education, Best Management Practices for erosion control, biological monitoring during installation of construction fencing, silt fencing, and toad exclusion fencing, and installation of a storm drain system and detention basins,
- Any western spadefoot toad found in the pitfall traps shall be collected, noted and translocated to predetermined receptor sites within the region based on the guidelines presented in the relocation program.
- Vegetation clearing, grading, and grubbing activities shall not occur during the breeding season of migratory birds, raptors, California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher, unless the applicant obtains written concurrence from the Director of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. If vegetation removal is to take place during the nesting

season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided.

- The project shall comply with the San Diego County Light Pollution Code by fully shielding low pressure sodium lamps and following defined hours of operation (Sections 59.101-59.115).
- The project shall comply with the San Diego County Noise Ordinance (Sections 36.401 et seq.) and the San Diego County Noise Element by following applicable one-hour average sound level limits and running construction equipment only between 7:00 am and 7:00 pm.
- The project only develops isolated, man-made wetlands on site. Off-site roads affect wetlands and other sensitive habitats to the extent necessary to ensure public safety.
- Preservation of the 115.6 acres of open space on site and preservation of 2.7 acres of pasture and 12.3 acres of riparian vegetation off-site would fully mitigate for impacts to California gnatcatcher, least Bell's vireo southwestern willow flycatcher, special status species, and sensitive habitat lands.
- A 100-foot wetland buffer is designed around the western portion of the site adjacent to willow riparian forest vegetation of Horse Ranch Creek.
- Wetland mitigation shall include dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres off-site or as defined through required state and federal wetland permits. Details of the wetland mitigation and resource management are described in the "Wetland Mitigation Plan for the Meadowood Specific Plan Project, County of San Diego California" and "Conceptual Resources Management Plan for the Meadowood Site".
- The proposed water tank and tank access road location has been designed around the existing water tank and access road to reduce any new visual or physical barriers to wildlife movement along Corridor 1.
- Construction of Pala Mesa Drive will not adversely affect access to local foraging and breeding habitat as it will be located south of the main Horse Ranch Creek drainage area. Utilizing the existing Pankey Road bridge will allow for continued access for small wildlife to riparian vegetation to the southwest.

8.1 SPECIAL STATUS SPECIES

Direct impacts to 13.5 acres of occupied California gnatcatcher habitat and 1.0 acres of unoccupied, suitable habitat are mitigated with 29.0 acres on site. Direct impacts to 3.7 acres of occupied least Bell's vireo habitat are mitigated with 11.1 acres off-site. Direct impacts to 3.7 acres of unoccupied, suitable southwestern willow flycatcher habitat are mitigated with the same riparian habitat as least Bell's vireo. Credits in an established bank may also be purchased.

Impacts to federally listed species shall be mitigated at ratios consistent with the County guidelines and shall be incorporated into an ongoing Section 7 Consultation between the USFWS and ACOE pertaining to this project.

Proposed preservation of 115.6 acres of open space on site within a regional open space network would offset the loss of 62.2 acres of foraging habitat for birds of prey and other special status species. In addition, mitigation of 11.1 acres of riparian forest and scrub habitat would provide for equal or greater benefit to special status species such as western spadefoot toads. Mitigation for western spadefoot toads shall consist of a relocation program that will be conducted prior to and during project grading. Any western spadefoot toad found in the pitfall traps shall be collected, noted

and translocated to predetermined receptor sites within the region based on the guidelines presented in the relocation program.

8.2 RIPARIAN HABITAT AND SENSITIVE NATURAL COMMUNITY

Preservation of the 115.6 acres of open space on site will be sufficient to provide in-kind mitigation for potentially significant impacts to disturbed coastal sage scrub, southern mixed chaparral, and non-native grassland both on- and off-site. Additional off-site mitigation for impacts to pasture would include 2.7 acres. Wetlands shall be mitigated through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres. The mitigation measures proposed for the Meadowood site provides on site preservation and management of approximately 122.4 acres of natural vegetation open space (including 5.9 acres of impact neutral areas and 0.9 acre PA1 open space) and 49.3 acres of agricultural open space (including 1.9 acre of disturbed area). Mitigation for all on site and off-site impacts to sensitive habitats, including all preserved habitat on site, totals 186.7 acres of preserved land. Total preserved land for mitigation, which does not include the 5.9 acres of impact neutral land, 0.9 acre PA1 open space, and 49.3-acre agricultural open space equals 130.6 acres. The 49.3 acres of agriculture land on site shall be managed by the Homeowners' Association. This provides a buffer to biological resources, but is not a part of the biological open space or MSCP preserve. Table XII summarizes all project impacts to vegetation communities and required mitigation per the County's guidelines.

TABLE XII. ALL PROJECT IMPACTS TO VEGETATION COMMUNITIES AND REQUIRED MITIGATION

Vegetation Community	Existing (On Site)	Permanent Impacts (On- and Off-site)	Mitigation Ratio	Mitigation Required	Preserved (On Site)	Impact Neutral	Off-site Mitigation
Agriculture	209.9	166.3	0:1	0.0	47.4	0.6	0.0
Non-native grassland	31.9	15.3	0.5:1	7.7	22.0	2.0	0.0
Coastal sage scrub (CSS)/Disturbed CSS	87.1	14.5	2:1	29.0	74.5	2.8	0.0
Southern mixed chaparral	19.6	2.2	0.5:1	1.1	17.5	0.0	0.0
Non-native trees	8.3	9.1	0:1	0.0	0.2	0.0	0.0
Pastureland	1.5	30.2	0.5:1	15.1	0.0	0.0	2.7**
Coast live oak woodland	1.7	0.3	3:1	0.9	1.7	0.0	0.0
Willow/mule fat scrub	<0.1	<0.1	3:1	<0.3	0.0	0.0	0.3
Southern willow scrub	0.0	<1.0	3:1	2.7	0.0	0.0	2.7
Southern arroyo willow riparian forest	0.0	2.8	3:1	8.4	0.0	0.0	8.4
Freshwater marsh	0.0	0.3	3:1	0.9	0.0	0.0	0.9
Open water	0.7	0.7	0:1	0.0	0.0	0.0	0.0
Disturbed/developed areas	28.7	39.9	0:1	0.0	8.4	0.5	0.0
TOTAL ACRES	389.5	282.3*		65.8*	171.7*	5.9	15.0

*Totals may not add up correctly due to rounding. **Only 2.7 acres of off-site mitigation is needed for pasture due to the amount of non-native grassland preserved on site.

8.3 JURISDICTIONAL WETLANDS AND WATERWAYS

The on site and off-site development areas of the Meadowood project will result in permanent impacts to 3.12 acres of ACOE jurisdiction, of which 2.43 acres are wetlands, 3.22 acres of CDFG jurisdiction, and 2.29 acres of RPO wetlands. The on site and off-site development areas of the Meadowood project will result in temporary impacts to 2.04 acres of ACOE jurisdiction, 2.04 acres of CDFG jurisdiction, and 2.04 acres of RPO wetlands. A 3:1 mitigation ratio will be used.

8.4 WILDLIFE MOVEMENT AND NURSERY SITES

Development of the Meadowood site and associated off-site improvement areas would not impact regional wildlife movement. The proposed location of Pala Mesa Drive south and west of the main drainage of Horse Ranch Creek would not obstruct local small wildlife species travel within the riparian vegetation, prevent access to water sources or foraging habitat, or prevent migratory birds from utilizing the area. Pala Mesa Drive connects to existing Pankey Road just south of an existing bridge. The bridge provides adequate clearance and access for the small wildlife expected to use this drainage.

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